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OHIO
AGRICULTURAL
STATISTICS
SERVICE

1986 Ohio Agricultural Statistics and Ohio Department of Agriculture Annual Report

RICHARD F. CELESTE
GOVERNOR

STATE OF OHIO
OFFICE OF THE GOVERNOR
COLUMBUS 43266-0601

Agriculture is the number one contributor to Ohio's economy, providing the state with 20 percent of its jobs. We, as Ohioans, can take great pride in products supplied by Ohio farms, greenhouses, forests and nurseries.

Ohio agricultural production is extremely diverse. The statistics showing the great variety of agriculture products and services are within this publication, as are the duties performed by the Ohio Department of Agriculture. The 1986 Ohio Agricultural Statistics Bulletin is published through the cooperation of the Ohio Department of Agriculture, the Ohio Agricultural Statistics Service and the Ohio Cooperative Extension Service.

This bulletin provides an important source of information for state and local officials, schools, and agribusinesses. I encourage you, as a rural or urban consumer, to consider the importance of agricultural production in your life. Through your support and interest, we will preserve this important industry for the benefit of future generations.

With best regards,

Richard F. Celeste

Richard F. Celeste
Governor

OHIO DEPARTMENT OF AGRICULTURE

65 South Front Street
Columbus, Ohio 43215-4194
614-466-2732

Richard F. Celeste, Governor

Steven D. Maurer, Director

In accordance with Section 149.01 of the Ohio Revised Code, I am pleased to present to you the 1986 Annual Report for the Ohio Department of Agriculture and the annual data from the Ohio Agricultural Statistics Services.

This bulletin is a result of the combined efforts of the Ohio Agricultural Statistics Service, the Ohio Department of Agriculture and the Ohio Cooperative Extension Service. It has become a useful and informative tool for those who are interested in Ohio agriculture and the department.

Agriculture is an important part of Ohio's economy and it continues to be the state's number one industry. The production of food and fiber affects everyone and the problems facing the agricultural industry and rural communities will ultimately affect our urban neighbors. As Ohioans involved in agriculture, we must work to educate the non-agricultural community about the benefits that everyone receives from a strong agricultural economy. I look forward to working with you for agriculture's future.

Sincerely,

OHIO DEPARTMENT OF AGRICULTURE

Steven Maurer

Steven D. Maurer
Director

1986
OHIO AGRICULTURAL STATISTICS

Compiled by
OHIO AGRICULTURAL STATISTICS SERVICE
Room 608 Federal Building
200 North High Street
Columbus, Ohio 43215

Homer L. Carter, State Agricultural Statistician
Wayne Matthews, Deputy Statistician
Harry Delong, Editor, Chief, Estimates Section
Kim Lowery, Typist

UNITED STATES DEPARTMENT OF AGRICULTURE
NATIONAL AGRICULTURAL STATISTICS SERVICE

Charles E. Caudill, Administrator

Cooperating with

Fred E. Hutchinson
Vice President for Agricultural Administration
at The Ohio State University

OHIO AGRICULTURAL RESEARCH AND DEVELOPMENT CENTER
Fred E. Hutchinson, Director

OHIO COOPERATIVE EXTENSION SERVICE
J. Michael Sprott, Director

OHIO DEPARTMENT OF AGRICULTURE

Steven D. Maurer, Director
Dick Tootle, Assistant Director

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ACKNOWLEDGEMENTS

Estimates made by the Ohio Agricultural Statistics Service are based on information supplied by farmers and agribusinesses. These estimates are the result of the data collected on probability designed surveys. Considerable information is collected from farmers randomly selected for telephone or personal interviews. Data for county estimates are collected from a large mail survey and, where available, check data are used to the extent possible.

Our sincere appreciation and thanks are also extended to the office staff, field and telephone interviewers of the Ohio Agricultural Statistics Service. The cover picture and layout were provided by Rudy Byrd, Don Mortensen and Malcom Emmons of the Ohio Cooperative Extension Service.

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OHIO CROP REPORTING DISTRICTS

PROFILE OF OHIO AGRICULTURE 1986 1/

Commodity	Unit	Ohio			State ranked first		
		Rank 2/	Prod. or inventory 3/	Value of production	State 2/	Prod. or inventory	Value of production
			Thousands			Thousands	
Field Crops							
Corn for grain	Bu.	6	476,160	714,240	Iowa	1,626,750	2,277,450
Corn for silage	Ton	11	2,720	-	Wisconsin	10,640	-
Oats	Bu.	11	12,160	12,768	Wisconsin	52,700	52,700
Wheat, winter	Bu.	11	48,300	113,505	Kansas	336,600	740,520
Rye	Bu.	20	175	438	S. Dakota	4,440	4,884
Soybeans	Bu.	6	150,470	714,733	Illinois	366,000	1,738,500
Hay, all (baled)	Ton	16	4,307	262,727	Wisconsin	10,775	560,300
Sugar beets	Ton	12	309	4/	Minnesota	5,194	183,168
Potatoes, all	Cwt.	18	2,377	14,024	Idaho	87,320	379,842
Tobacco: Burley (31)	Lb.	4	13,064	20,432	Kentucky	287,000	450,106
Other (42-44)	Lb.	1	510	454	**Ohio**	**510**	**454**
Vegetables, Fresh							
Sweet corn	Cwt.	4	1,263	17,051	Florida	4,361	63,235
Lettuce	Cwt.	12	99	3,346	California	42,182	497,748
Tomatoes	Cwt.	6	675	17,348	Florida	15,830	490,730
Celery	Cwt.	4	212	2,756	California	12,566	147,177
Onions, storage	Cwt.	10	181	2,196	Oregon	5,913	41,012
Total fresh vegetables 5/	Cwt.	11	2,910	43,959	California	108,459	1,554,407
Vegetables, Processing							
Tomatoes for processing	Ton	2	384.8	28,591	California	6,480.32	403,076
Cucumbers for processing	Ton	4	55.62	10,623	Michigan	139.2	20,323
Fruit							
Apples	Lb.	14	90,000	15,878	Washington	3,100,000	425,820
Grapes	Ton	7	8	1,762	California	4,690	988,575
Peaches	Lb.	28	2,500	725	California	1,368,500	154,111
Strawberries	Cwt.	8	57	3,477	California	7,878	385,245
Grape products	Ton	6	7.6	1,482	California	3,990	679,860
Poultry and Poultry Products							
Chickens, total inv., Dec. 1, 1986	Head	7	20,400	-	California	40,900	-
Chickens - sold	Lb.	9	44,030	5,284	North Carolina	93,220	14,915
Broilers - production	Lb.	25	42,570	14,474	Arkansas	3,225,794	1,161,286
Turkey production	Lb.	15	78,120	36,716	North Carolina	727,260	341,812
Egg production, Dec. 1985-Nov. 1986	000 eggs	5	3,868	157,943	California	7,850	347,362
Livestock							
Hogs & pigs inv., Dec. 1, 1986	Head	8	1,950	-	Iowa	12,600	-
Hogs & pigs production (live wt.)	Lb.	8	707,313	344,348	Iowa	5,122,176	2,514,047
All cattle & calves inv., Jan. 1, 1987	Head	23	1,800	-	Texas	13,400	-
Cattle & calves production (live wt.)	Lb.	21	611,370	309,101	Texas	5,553,980	2,978,469
Beef cows inv., Jan. 1, 1987	Head	28	390	-	Texas	5,275	-
Milk cows inv., Jan. 1, 1987	Head	6	370	-	Wisconsin	1,840	-
Sheep & lamb inv., Jan. 1, 1987	Head	12	300	-	Texas	1,930	-
Sheep & lamb production (live wt.)	Lb.	13	20,015	12,718	Texas	114,980	69,649
Cattle slaughtered	Head	15	524.1	-	Kansas	6,493.8	-
Hogs slaughtered	Head	7	3,659.9	-	Iowa	18,711.2	-
Calves slaughtered	Head	13	112.2	-	New York	523.9	-
Sheep & lambs slaughtered	Head	18	24.9	-	Colorado	1,261.2	-
Wool	Lb.	13	1,956	900	Texas	16,400	13,284
Red meat production	Lb.	13	990,035	-	Kansas	4,809,384	-
Livestock slaughtering establishments, (not 000) 1/1/87	No.	4	259	-	Iowa	321	-

PROFILE OF OHIO AGRICULTURE 1986 1/

Commodity	Unit	Ohio			State ranked first		
		2/ Rank	Prod. or 3/ inventory	Value of production	State 2/	Prod. or inventory	Value of production
			Thousands			Thousands	
Milk and Milk Products							
Milk production	000 lb.	7	4,936	-	Wisconsin	25,200	
Milk-Equivalent used for MFG dairy Prod	000 lb.	8	2,215	-	Wisconsin	21,068	-
All cheese (excl. cottage cheese)	Lb.	10	107,487	-	Wisconsin	1,813,542	-
Swiss cheese	Lb.	1	57,920	-	Ohio	57,920	-
American type cheese	Lb.	14	30,807	-	Wisconsin	1,081,188	-
Lowfat cottage cheese	Lb.	3	14,218	-	California	62,267	-
Creamed cottage cheese	Lb.	4	43,727	-	New York	101,212	-
Cottage cheese curd	Lb.	5	25,081	-	New York	104,438	-
Ice cream	Gal.	5	45,444	-	California	106,560	-
Ice milk	Gal.	6	14,147	-	California	31,572	-
Milk sherbet	Gal.	4	3,338	-	California	4,717	-
Water ices	Gal.	10	1,671	-	Texas	4,389	-
Butter	Lb.	9	20,290	-	Wisconsin	273,939	-
Manufactured dairy plants (not 000)	No.	5	82	-	Wisconsin	383	-
Miscellaneous							
Cash Receipts	000 Dol.	11	3,940	-	California	13,970	-
Number of farms 1985	No.	7	88,000	-	Texas	160,000	-
Operations with cattle	No.	10	44,000	-	Texas	142,000	-
Operations with hogs	No.	9	13,000	-	Iowa	38,000	-
Operations with sheep	No.	3	7,500	-	Iowa	12,000	-
Operations with milk cows	No.	5	10,600	-	Wisconsin	39,000	-
Fertilizer consumption 6/ (July 1985-June 1986)	Ton	7	1,939	-	Illinois	3,905	-

1/Data reported for 1985 unless noted otherwise in stub heading. 2/Rank among the States based on production or inventory. 3/ Thousand unless noted otherwise in stub. 4/ Not available at time of publication. 5/ Includes small quantity of processing vegetables. 6/ Preliminary.

INDEX NUMBERS OF CROP AND LIVESTOCK PRODUCTION, OHIO, 1977-86 1/

	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
Crops										
Feed grains	100	100	109	115	94	119	59	119	134	123
Food grains	100	58	88	93	97	71	81	67	81	67
Soybeans	100	105	119	111	81	109	86	113	132	124
Other field crops	100	93	69	83	85	99	71	98	77	71
Seed crops and hay	100	109	102	101	101	99	91	107	129	121
Vegetables, all	100	100	88	73	76	96	107	101	122	122
Fruit	100	180	156	240	138	196	151	171	179	120
Total crops	100	100	109	110	90	110	76	111	127	117
Livestock & Livestock Products:										
Meat animals	100	93	111	101	99	102	113	108	109	106
Poultry & poultry products	100	113	112	111	115	128	134	153	158	171
Milk	100	96	96	97	98	102	107	103	109	111
Wool	100	85	78	70	70	66	59	57	59	60
Total livestock & products	100	97	105	100	100	105	113	111	115	115
Total, all commodities	100	99	108	106	94	108	89	111	123	117

1/Base year 1977=100

1986 CROP AND WEATHER REVIEW

The 1986 growing season appeared ordinary following the almost unbelievably good 1985 season when many record high crop yields were shattered. In reality 1986 was a very good season according to the Ohio Agricultural Statistics Service. There were some problems however; northern Ohio generally was too wet and many times the rains and wet soils interfered with fieldwork. Row crop planting was slow and difficult. Hay curing and harvesting was a challenge, especially throughout the early part of the summer. Conversely, southern Ohio, particularly the southeast, was quite dry most of the season. Yields of forages from grasslands in the area were sharply reduced.

Starting in the fall of 1985, when the 1986 winter wheat crop was planted, above normal rains in major wheat producing areas of Ohio held back seeding. Some intended acreage could not be seeded because of wet soils. The fields that were planted were susceptible to drowning out. December 1985 brought both subnormal precipitation and temperatures. January precipitation was only half of normal, providing almost no snow cover for winter wheat. Fortunately temperatures averaged above normal, although there were brief periods of low temperatures and snow cover just when it was needed most. Overall precipitation was 40 percent of normal in February and snow never accumulated to any significant depth. March temperatures fluctuated from below normal to summer-like temperatures which continued into early April. Rainfall was below normal during March, especially in the southeast where brush fires developed because of subnormal precipitation, desiccating winds and above normal temperatures. Land preparation, which was delayed by wet soils the previous fall, made rapid progress during March.

April temperatures were higher than normal early and late in the month, reaching record highs in some areas of Ohio. During the middle of April, temperatures were subnormal, plunging to record lows on April 23, 1986. These freezing temperatures late in the spring caused a wide range of damage to fruit crops. Damage ranged from not much more than normal thinning to a total loss. Generally most damage occured in the south where fruit crop development was more advanced.

April precipitation was below normal, which allowed farmers plenty of time to begin early planting of field crops. Corn and soybean planting kept pace with normal progress. May temperatures were subnormal early and late in the month, but otherwise were near normal. Topsoil moisture was short to adequate early in the month with very little precipitation until late May. The late month precipitation slowed fieldwork, but most areas needed the moisture. Rainfall for May was only 80 percent of normal statewide. June temperatures averaged slightly above normal. Growing degree day accumulations were above average early in the month and subnormal the last half of June. Topsoil moisture was surplus in many areas, but southeast Ohio was getting drier.

June rainfall was surplus except in most of the south and the north central area. This rainfall distribution caused haying difficulties in northern areas and a reduced hay growth in southeast Ohio. Tobacco farmers who transplanted ahead of the June rains, had a good crop. Acreage transplanted later was hit by summer drought. June rains increased disease problems and reduced yields to winter wheat.

July rainfall was above normal except in southeast where crop and grasslands deteriorated further. The July rains also interfered with hay cutting and curing in northern Ohio. July temperatures were near normal. Row crops grew very well with the ample soil moisture in most areas and the absence of stressful temperatures.

August precipitation was subnormal except in the northwest area, which received above normal rainfall most of the growing season. Average temperatures were usually near normal. Soil moisture became short in most of Ohio, but not enough to adversely affect most row crops. Crops matured very rapidly during August. Haying conditions were very good except for the drought stricken southeast.

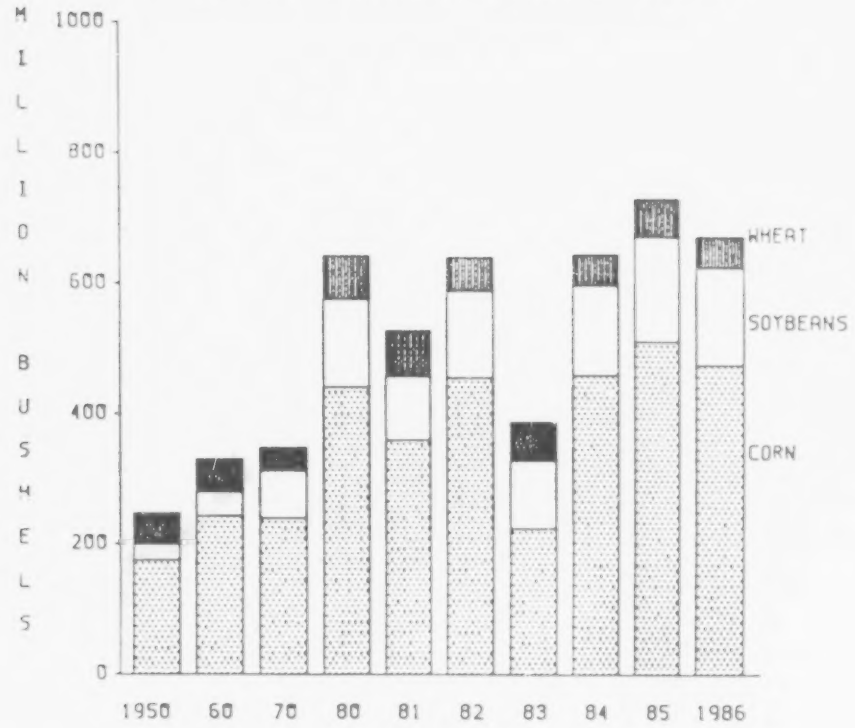
Rains in early September assured enough moisture for maturing row crops. September rainfall was 64 percent above normal, falling mostly at the beginning and last half of the month. Topsoil moisture was reported as short most of September in spite of the rainfall because soil moisture was depleted in August. Row crop harvests began in mid-September, but progressed slowly during the remainder of the month.

When corn and soybean harvest and winter wheat seeding should have gained momentum, recurring rains began. October rainfall was 77 percent above normal and November rainfall was 28 percent above normal. The continued rains delayed fieldwork throughout the fall. Corn harvest was slightly ahead of normal, soybean harvest about on schedule, but winter wheat seeding ran late. Considerable wheat acreage was not planted for 1987 harvest because of wet conditions.

OHIO CROP VALUES

The total value of production of all crops estimated in Ohio, totaled $1.96 billion in 1986, 25 percent less than the total value of production in 1985 at $2.62 billion. Sugarbeets are not included in either year because price data is not available for 1986. The unit price of most of the major crops (corn, soybeans, wheat, oats, and rye) declined from a year earlier, along with reduced production for all of the crops mentioned earlier, except rye. Fresh market vegetables made a good showing with both production and price up from a year earlier. Conversely, processing vegetables exhibited lower production and unit price. Corn for grain usually takes first place in the value of production, with the exception of three years — 1978, 1983, and 1986. In each of these years, soybeans nudged corn out of first place. In 1986 the value of production was so close, $714.2 million for corn and $714.7 million for soybeans, that only a 1 cent increase in corn price could put corn in the lead again. The price per unit of almost all of the 1986 crops are subject to revision because many times a significant part of the crop remains to be marketed during 1987. Revised figures for 1986 will be published in January 1988. The price of corn, at $1.50 per bushel, was off 36 percent from the previous year. Prior to 1986, agricultural programs were designed to support prices. In 1986 qualified farmers received payments to compensate for the difference between market price and support price.

SUM OF OHIO CORN FOR GRAIN, SOYBEAN & WHEAT PRODUCTION



OHIO VEGETABLE PRODUCTION

Production of fresh market and processing vegetables, including strawberries, totaled 11,788,000 hundredweight (cwt) in 1986. This is 4 percent less than a year earlier. Most vegetable crops in the estimating program showed production declines from 1985 to 1986. Only the fresh market crops, sweet corn, celery, and tomatoes, posted higher production figures than a year earlier. Both acreage and yield per acre increased for sweet corn and fresh market tomatoes, boosting production 6 percent and 17 percent respectively. Acreage increased but yield declined for celery, giving a net effect of a 2 percent production increase. Crops which posted production declines from a year earlier, included lettuce and onions, with acreage unchanged; but with lower yields, putting total production down 19 percent for lettuce and 18 percent for onions. Processing tomato acreage declined and yield increased, producing a 5 percent decline in output.

Acreage and yield of cucumbers for pickles both declined, giving an 8 percent reduction in output from a year earlier. Strawberry production declined 38 percent from 1985 to 1986, primarily because of lower yields but also fewer acres. A late April freeze did some damage, but rains during the harvest period caused most of the yield reduction.

Total value of the estimated vegetable and strawberry production in 1986, was $86,734,000, a 2 percent increase from a year earlier. Fresh market vegetable value of production amounted to $43,959,000; 21 percent more than the 1985 value. Unit prices of all estimated items were higher, except lettuce. The unit price for tomatoes was up almost 29 percent; onions, 50 percent; and celery, 21 percent. Strawberry value of production, at $3,477,000, dropped 37 percent because of the reduced output. Processing vegetable value of production, at $39,298,000, was down 9 percent from 1985. This was because of lower output and lower prices per ton.

Transplanting was used on 13,000 acres (88 percent) of the processing tomato acreage; direct seeding was used on 1,800 acres (12 percent). This was a modest 1 point move in favor of seeding from 1985, but far below the record high 31 percent in 1980. Mechanical picking was used on 12,400 acres of processing tomatoes (84 percent), versus hand-picking on 2,400 acres (16 percent). This is the highest percent on record which used mechanical picking. The top 3 processing tomato producing counties in 1986 were unchanged from 1985, with Sandusky in first place, followed by Putnam and Wood. Fourth place was taken by Seneca from Henry and Fulton retains fifth place. These five counties produced 61 percent of the Ohio processing tomatoes.

OHIO FRUIT PRODUCTION

Apple production in Ohio during 1986 was only 90 million pounds, a decline of 38 percent from 1985 and 47 percent less than the recent production peak of 170 million pounds in 1980. The 1980 crop was the largest in 35 years from 1951 to 1986. A sharp freeze in late April 1986 caught the Ohio apple blooms far enough advanced to be susceptible to damage, especially in the southern half of the state. Damage varied widely depending on location, elevation, and air drainage. The season average price for Ohio apples increased 3.2 cents from a year earlier, but lower production held the total crop value to $1.59 million, a decline of 24 percent from a year earlier. Peach production also was reduced by frost in 1986, to only 2.5 million pounds. In 1984 and 1985 no peach estimate was made for Ohio, because frost eliminated virtually any significant commercial production. In 1983, 7 million pounds of peaches were produced in Ohio. Growers received an average of 29 cents per pound for the 1986 peach crop giving a total value of production of $725,000. Grape production in Ohio was 8,000 tons in 1986, 14 percent more than 1985 and 29 percent less than 1984. Any damage to grapes from the April freeze, occured mostly outside the Lake Erie production area. The mature crop was one of the poorest quality in recent years, with the sugar content down sharply because of excessive moisture supplies in the main commercial growing ares of the northeast.

Strawberry production in Ohio for 1986 was down 38 percent from the previous year. The April freeze did some damage and the picking season was wet. This caused some spoilage and the reluctance on the part of "you-pickers" to participate in the harvest during bad weather.

ANNUAL SUMMARY: CROP PRODUCTION AND VALUE
OHIO 1984-1986, U. S. 1986 1/

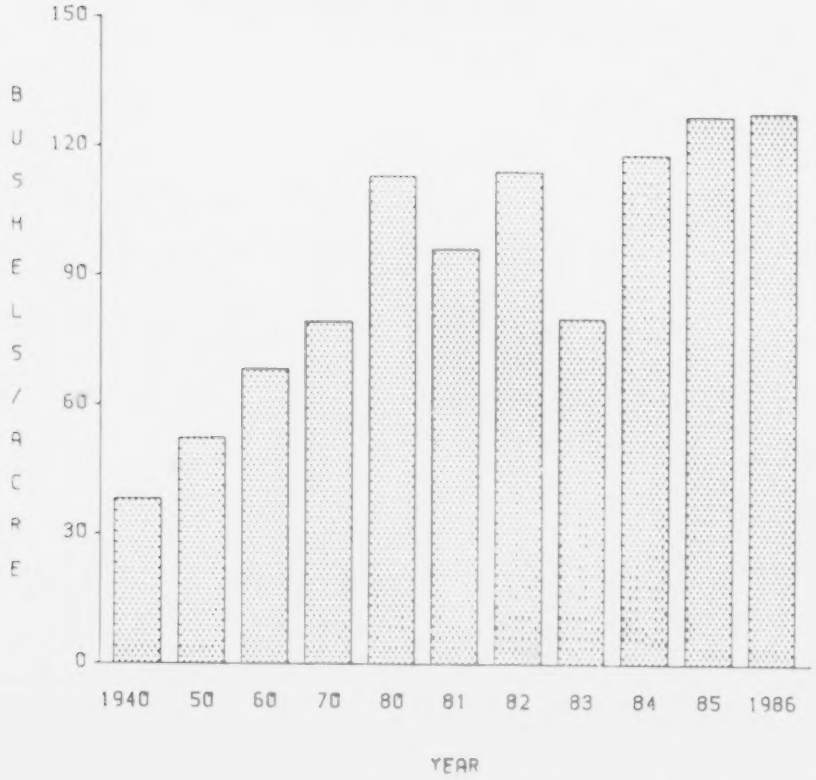
Crop	Ohio				U.S.	Ohio			U.S.	Unit 9/
	Acres planted	Acres harvested				Yield per acre				
	1986	1984	1985	1986	1986	1984	1985	1986	1986	
	Thou.	Thousand acres								
All Corn	3,900									
Corn for Grain	-	3,900	4,030	3,720	69,189	118.0	127.0	122.0	119.3	Bu.
Corn for Silage	-	220	200	160	6,244	16.0	17.0	17.0	14.2	Ton
Winter Wheat	1,150	1,100	950	1,050	43,170	44.0	62.0	46.0	35.2	Bu.
All Wheat	1,150	1,100	950	1,050	60,688	44.0	62.0	46.0	34.4	Bu.
Soybeans for Beans	3,700	3,770	3,870	3,670	59,427	36.5	41.5	41.0	33.8	Bu.
Oats	260	220	310	160	6,870	63.0	85.0	76.0	56.0	Bu.
Rye	40	5	4	5	677	35.0	43.0	35.0	28.8	Bu.
Potatoes-Summer 10/	-	1.2	1.1	-	95.8	285	310	-	218	Cwt.
-Fall	10.2	9.3	9.3	9.7	1,031.3	260	265	245	301	Cwt.
-Total	10.2	10.5	10.4	9.7	1,215.3	263	270	245	292	Cwt.
Sugar Beets	15.6	10.7	12.7	15.0	1,191.3	18.8	20.3	20.6	21.2	Ton
Tobacco-Miami V.(41-44)	-	1.1	0.82	0.32	7.9	2,000	2,050	1,595	1,984	Lb.
-Burley (31)	-	10.9	7.1	7.1	210.7	2,230	2,150	1,840	1,936	Lb.
- Total all types	-	12.0	7.92	7.42	583.9	2,209	2,140	1,829	1,997	Lb.
All Hay	-	1,350	1,450	1,460	62,274	2.81	3.17	2.95	2.49	Ton
Alfalfa	-	600	700	730	26,748	3.70	4.00	3.70	3.42	Ton
All Other Hay	-	750	750	730	35,526	2.10	2.40	2.20	1.80	Ton
Strawberries	1.5	1.6	1.7	1.5	44.4	48	54	38	230	Cwt.
Apples - Commercial 4/	-	9.7	10.0	10.0	459.1	13,900	14,500	9,000	17,200	Lb.
Peaches 4/	-	1.3	1.0	1.0	188.1	8/	8/	2,500	12,400	Lb.
Grapes	-	2.8	2.3	2.0	791.9	4.00	3.04	4.00	7.07	Ton
		Acres								
Sweet Corn	16,000	15,000	15,200	15,400	183,100	75	78	82	81	Cwt.
Celery	500	400	450	470	33,640	470	460	450	521	Cwt.
Lettuce	1,000	750	900	900	208,970	120	135	110	281	Cwt.
Onions 5/	500	500	490	490	115,140	410	450	370	373	Cwt.
Tomatoes (fresh)	2,800	1,400	2,300	2,500	126,810	190	250	270	248	Cwt.
Fresh Market 6/	21,900	18,990	20,940	20,760	1,052,940	-	-	-	-	Cwt.
Tomatoes (processing)	15,400	15,900	15,900	14,800	252,060	24.50	25.47	26.00	29.33	Ton
Cucumbers (processing)	4,600	4,800	4,800	4,500	110,310	11.73	12.60	12.36	5.78	Ton
Processing 7/	20,290	20,700	20,960	19,560	1,238,330	-	-	-	-	Ton

1/Data for the United States, where applicable, include all seasonal groups and are rounded to conserve space.
2/Price per unit for Ohio and U.S. grain and hay crops obtained from Crop Values, January 1987. Revisions available January 1988.
3/Not available at time of publication
4/Utilized production.
5/When computing Ohio crop values, 25,000 cwt., 15,000 cwt., and 23,000 cwt. were shrinkages in 1984, 1985, and 1986. U.S. shrinkage in 1986 was 4,833,000 cwt. Value of crop based on sales to December 1, 1986.
6/Includes processing totals of dual usage crops and crops not published separately.
7/Processing crops price per unit includes all payments to the growers, including the cost of materials and services provided by the contractor to get the commodity to the plant door. Processing vegetable total includes minor crop acreages not published separately.
8/No significant production due to frost.
9/For yield and production.
10/Ohio summer season group combined with fall in 1986.

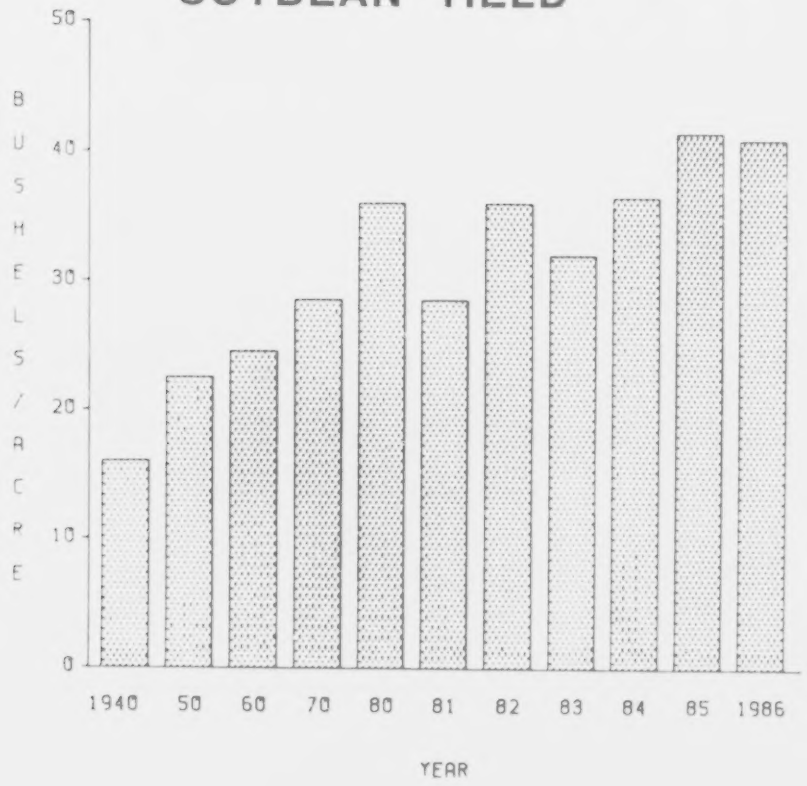
ANNUAL SUMMARY: CROP PRODUCTION AND VALUE
OHIO 1984-1986, U. S. 1986 1/

	Ohio			U.S.	Ohio		U.S.	Ohio		U.S.
	Production				Price per unit 2/			Value of production		
	1984	1985	1986	1986	1985	1986	1986	1985	1986	1986
	Thousands				Dollars			Thousand dollars		
All Corn										
Corn for Grain	460,200	511,810	476,160	8,252,834	2.33	1.50	1.49	1,192,517	714,240	12,387,438
Corn for Silage	3,520	3,400	2,720	88,510	-	-	-	-	-	-
Winter Wheat	48,400	58,900	48,300	1,519,143	3.00	2.35	2.27	176,700	113,505	3,483,438
All Wheat	48,400	58,900	48,300	2,086,780	3.00	2.35	2.34	176,700	113,505	4,861,364
Soybeans for Beans	137,605	160,605	150,470	2,007,033	5.10	4.75	4.65	819,086	714,733	9,326,189
Oats	13,860	26,350	12,160	384,546	1.16	1.05	1.16	30,566	12,768	431,626
Rye	175	172	175	19,498	3.00	2.50	1.35	516	438	27,438
Potatoes-summer 10/	342	341	-	20,900	-	-	-	-	-	-
-fall	2,418	2,465	2,377	310,755	-	-	-	-	-	-
-total	2,760	2,806	2,377	354,468	4.80	5.90	4.94	13,418	14,024	1,739,704
Sugar Beets	201	258	309	25,229	27.90	3/	3/	7,198	3/	3/
Tobacco -Miami	2,200	1,681	510	15,710	0.87	0.81	0.667	1,462	454	10,486
-Burley	24,307	15,265	13,064	407,922	1.590	1.564	1.565	24,271	20,432	638,247
Total all types	26,507	16,946	13,574	1,165,927	1.519	1.539	1.525	25,733	20,886	1,777,911
All Hay	3,795	4,600	4,307	155,271	55.00	61.00	60.10	253,000	262,727	8,643,727
Alfalfa	2,220	2,800	2,701	91,424	-	-	-	-	-	-
All Other Hay	1,575	1,800	1,606	63,847	-	-	-	-	-	-
Strawberries	77	92	57	10,193	60.00	61.00	49.40	5,520	3,477	503,641
Apples 4/	135,000	145,000	90,000	7,872,800	.144	.176	.131	20,810	15,878	1,028,039
Peaches 4/	8/	8/	2,500	2,237,900	8/	.290	.146	8/	725	326,810
Grapes 4/	11.2	7.0	8.0	5,595.3	135.00	220.00	211.00	946	1,762	1,179,426
Sweet Corn	1,125	1,186	1,263	14,803	12.50	13.50	14.00	14,825	17,051	206,974
Celery	188	207	212	17,535	10.70	13.00	12.10	2,215	2,756	212,220
Lettuce	90	122	99	58,795	35.70	33.80	12.20	4,355	3,346	719,078
Onions 5/	205	221	181	42,935	9.26	13.90	9.75	1,908	2,196	371,411
Tomatoes (fresh)	266	575	675	31,402	20.00	25.70	26.60	11,500	17,348	835,315
Fresh market	2,250	2,839	2,910	213,724	-	-	-	36,450	43,959	3,195,195
Tomatoes (processing)	389.6	405.0	384.8	7393.3	77.20	74.30	63.90	31,264	28,591	472,538
Cucumbers (processing)	56.3	60.5	55.6	637.4	197.00	191.00	177.00	11,915	10,623	112,922
Processing 7/	445.9	466.3	441.1	11,585.6	-	-	-	43,279	39,298	924,973

CORN YIELD



SOYBEAN YIELD



OHIO CROP RECORDS: ACREAGE, YIELD AND PRODUCTION

Crop	Date series began	Record 1/	Harv. acreage		Yield		Total production		Unit
			Acreage	Year	Yield	Year	Production	Year	
			Thousand				Thousand		
Corn for grain	1919	**High**	4,030	1985	**128.0**	**1986**	511,810	1985	Bu.
		Low	2,537	1961	27.5	1930	75,598	1924	Bu.
Corn for silage	1919	**High**	285	1981	**17.0**	**1986**	4,000	1982	Ton
		Low	106	1935	5.4	1930	823	1933	Ton
Soybeans for beans	1924	High	4,080	1979	41.5	1985	160,605	1985	Bu.
		Low	17	1925	11.5	1926	207	1926	Bu.
Wheat	1866	High	3,209	1899	62.0	1985	72,380	1977	Bu.
		Low	800	1973	6.0	1900	9,000	1866	Bu.
Oats	1866	High	2,374	1928	85.0	1985	92,400	1912	Bu.
		Low	**160**	**1986**	20.0	1890	12,160	1986	Bu.
Barley 2/	1866	High	318	1928	54.0	1972	8,427	1928	Bu.
		Low	8	1980	15.0	1933	332	1934	Bu.
Rye	1866	High	200	1913	43.0	1985	2,700	1913	Bu.
		Low	4	1985	10.0	1896	150	1981	Bu.
Popcorn 3/	1935	High	30.0	1945	3,550.0	1976	66,740	1976	Lb.
		Low	4.0	1935	1,150.0	1936	7,000	1935	Lb.
Alfalfa hay	1919	High	1,052	1955	4.00	1985	2,800	1985	Ton
		Low	93	1920	1.30	1930	188	1919	Ton
Other hay	1964	High	1,080	1968	2.40	1985	2,100	1973	Ton
		Low	**730**	**1986**	1.49	1965	1,328	1965	Ton
All hay	1866	High	3,553	1908	3.17	1985	4,898	1916	Ton
		Low	1,260	1983	0.60	1895	1,755	1895	Ton
Red clover seed 3/	1919	High	352.0	1944	95	1978	15,800	1951	Lb.
		Low	10.0	1981	25	1926	700	1981	Lb.
Apples	1934	High					7,886	1937	Bu.
		Low					780	1945	Bu.4/
Peaches	1899	High					3,800	1901	Bu.
		Low					15	1982	Bu.5/
Grapes 6/	1909	High					34.4	1935	Ton
		Low					4.9	1945	Ton
Maple Sirup 3/	1916	High					1,103	1918	Gal.
		Low					35	1973	Gal.
Potatoes - total	1866	High	225.0	1895	270	1985	12,269	1909	Cwt.
		Low	**9.7**	**1986**	27	1881	2,118	1981	Cwt.
Sugar beets 7/	1924	High	51.0	1938	21.7	1971	896	1971	Ton
		Low	9.5	1931	5.8	1937	72	1943	Ton
Burley tobacco	1919	High	25.0	1919	2,680	1970	28,350	1982	Lb.
		Low	6.7	1971	715	1935	6,435	1935	Lb.
All tobacco	1866	High	106	1909	2,496	1970	94,575	1918	Lb.
		Low	**7.42**	**1986**	620	1875	12,450	1874	Lb.

1/In case of ties, most recent year designated as record year. 2/Estimates discontinued in 1981. 3/Estimates discontinued in 1982. 4/ 42 lbs. 5/ 48 lbs. 6/Utilized production. 7/No acres contracted in 1982.

OHIO COUNTY ESTIMATES, 1985-1986
NUMBER OF FARMS, LAND IN FARMS, AVERAGE SIZE OF FARM

County & District	Number of Farms 1985	Number of Farms 1986	Average size of Farm 1985	Average size of Farm 1986	Land in farms 1985	Land in farms 1986
	Number		Acres		Thousand Acres	
Allen	1,170	1,150	172	175	201	201
Defiance	1,050	1,030	206	210	216	216
Fulton	1,270	1,250	179	182	227	227
Hancock	1,290	1,270	229	232	295	295
Henry	1,270	1,250	192	195	244	244
Lucas	570	560	154	157	88	88
Paulding	780	770	294	297	229	229
Putnam	1,570	1,540	185	188	290	290
Van Wert	960	950	263	265	252	252
Williams	1,070	1,050	204	208	218	218
Wood	1,500	1,480	213	216	320	320
District 1	**12,500**	**12,300**	**206**	**210**	**2,580**	**2,580**
Ashland	1,180	1,150	164	169	194	194
Crawford	1,000	980	228	233	228	228
Erie	530	520	189	192	100	100
Huron	1,080	1,060	231	235	249	249
Lorain	1,070	1,050	139	141	149	148
Ottawa	650	640	186	191	121	122
Richland	1,160	1,140	165	168	191	191
Sandusky	1,070	1,050	200	205	214	215
Seneca	1,530	1,500	203	207	311	310
Wyandot	830	810	281	288	233	233
District 2	**10,100**	**9,900**	**197**	**201**	**1,990**	**1,990**
Ashtabula	1,340	1,340	143	143	191	191
Columbiana	1,200	1,200	133	133	160	160
Cuyahoga	190	190	37	37	7	7
Geauga	620	620	124	124	77	77
Lake	280	280	64	64	18	18
Mahoning	770	770	117	117	90	90
Medina	1,230	1,230	107	107	132	132
Portage	980	980	119	119	117	117
Stark	1,450	1,450	114	114	166	166
Summit	320	320	63	63	20	20
Trumbull	1,090	1,090	112	112	122	122
Wayne	2,030	2,030	138	138	280	280
District 3	**11,500**	**11,500**	**120**	**120**	**1,380**	**1,380**
Auglaize	1,250	1,230	180	183	225	225
Champaign	1,100	1,080	216	220	238	238
Clark	900	900	220	220	198	198
Darke	2,310	2,250	152	156	352	352
Hardin	1,210	1,180	224	230	271	271
Logan	1,090	1,070	213	217	232	232
Mercer	1,580	1,580	177	177	280	280
Miami	1,240	1,210	165	169	204	204
Shelby	1,220	1,200	189	192	230	230
District 4	**11,900**	**11,700**	**187**	**191**	**2,230**	**2,230**
Delaware	1,020	990	191	197	195	195
Fairfield	1,250	1,250	184	184	230	230
Fayette	690	670	354	364	244	244
Franklin	740	910	191	199	141	141
Knox	1,360	1,330	171	174	232	232
Licking	1,530	1,520	175	176	268	268
Madison	780	770	359	364	280	280
Marion	850	830	265	271	225	225
Morrow	990	980	177	179	175	175
Pickaway	850	840	345	349	293	293
Ross	920	910	289	292	266	266
Union	1,120	1,100	224	228	251	251
District 5	**12,100**	**11,900**	**231**	**235**	**2,800**	**2,800**

OHIO COUNTY ESTIMATES, 1985-1986
NUMBER OF FARMS, LAND IN FARMS, AVERAGE SIZE OF FARM

County & District	Number of Farms		Average size of Farm		Land in farms	
	1985	1986	1985	1986	1985	1986
	Number		Acres		Thousand Acres	
Belmont	860	840	159	163	137	137
Carroll	860	840	151	155	130	130
Coshocton	1,000	980	198	202	198	198
Harrison	580	570	212	216	123	123
Holmes	1,610	1,600	124	124	199	199
Jefferson	550	550	142	142	78	78
Tuscarawas	1,140	1,120	145	147	165	165
District 6	**6,600**	**6,500**	**156**	**158**	**1,030**	**1,030**
Butler	1,130	1,130	150	150	169	169
Clermont	1,110	1,110	107	107	119	119
Clinton	1,020	1,020	227	227	232	232
Greene	1,040	1,040	190	190	198	198
Hamilton	280	280	107	107	30	30
Montgomery	1,100	1,100	113	113	124	124
Preble	1,360	1,360	160	160	218	218
Warren	1,060	1,060	151	151	160	160
District 7	**8,100**	**8,100**	**154**	**154**	**1,250**	**1,250**
Adams	1,590	1,580	133	134	212	212
Brown	1,890	1,870	120	121	227	227
Gallia	860	850	148	149	127	127
Highland	1,600	1,580	164	166	263	263
Jackson	500	490	162	165	81	81
Lawrence	540	530	143	145	77	77
Pike	600	590	185	188	111	111
Scioto	720	710	142	144	102	102
District 8	**8,300**	**8,200**	**145**	**146**	**1,200**	**1,200**
Athens	620	630	176	175	109	110
Guernsey	960	970	159	159	153	154
Hocking	460	460	133	133	61	61
Meigs	560	560	186	186	104	104
Monroe	790	790	173	173	137	137
Morgan	690	680	174	175	120	119
Muskingum	1,220	1,220	179	179	218	218
Noble	670	670	179	179	120	120
Perry	710	700	145	146	103	102
Vinton	210	210	248	248	52	52
Washington	1,010	1,010	161	161	163	163
District 9	**7,900**	**7,900**	**170**	**170**	**1,340**	**1,340**
STATE	**89,000**	**88,000**	**178**	**180**	**15,800**	**15,800**

NUMBER OF FARMS, LAND IN FARMS, AND AVERAGE SIZE FARM, OHIO AND UNITED STATES, 1979-86

Year	Number of farms 1/		Land in farms		Average size farm	
	Ohio	U.S.	Ohio	U.S.	Ohio	U.S.
	Number		Thousand acres		Acres	
1979	96,000	2,432,300	16,300	1,042,015	170	428
1980	95,000	2,432,510	16,200	1,038,885	171	427
1981	94,000	2,433,920	16,100	1,034,190	171	425
1982	93,000	2,400,550	16,000	1,027,795	172	428
1983	92,000	2,370,200	15,900	1,024,195	173	432
1984	90,000	2,328,400	15,800	1,019,378	176	438
1985	89,000	2,274,730	15,800	1,014,383	178	446
1986	**88,000**	**2,214,420**	**15,800**	**1,007,363**	**180**	**455**

1/ A farm is defined as a place with annual sales of agricultural commodities of $1,000 or more.

OHIO COUNTY ESTIMATES, 1985-1986
CORN FOR GRAIN: ACRES, YIELD AND PRODUCTION

County & District	Acreage Harvested		Yield		Production	
	1985	1986	1985	1986	1985	1986
	Acres		Bu. per acre		Bushels	
Allen	61,800	53,800	128.7	139.6	7,956,100	7,511,600
Defiance	37,400	31,100	107.1	121.4	4,006,300	3,775,000
Fulton	92,600	89,000	132.7	139.6	12,285,300	12,426,300
Hancock	82,800	70,800	136.6	150.1	11,310,600	10,628,500
Henry	74,800	66,600	137.6	145.0	10,291,300	9,655,200
Lucas	29,900	26,300	142.5	147.2	4,260,700	3,871,200
Paulding	53,100	49,600	119.9	141.1	6,366,400	6,999,700
Putnam	68,400	62,700	128.7	139.4	8,805,800	8,737,800
Van Wert	80,300	72,300	131.7	149.1	10,574,500	10,783,400
Williams	58,600	51,200	116.0	119.9	6,795,500	6,138,900
Wood	105,400	95,700	134.6	139.8	14,190,700	13,377,600
DISTRICT 10	**745,100**	**669,100**	**130.0**	**140.3**	**96,843,200**	**93,905,200**
Ashland	50,400	48,400	113.9	117.6	5,738,900	5,692,300
Crawford	64,000	62,000	139.0	137.1	8,896,400	8,500,400
Erie	34,500	32,300	129.1	131.3	4,455,600	4,242,000
Huron	65,000	60,700	129.1	123.0	8,394,600	7,468,400
Lorain	30,700	27,900	123.2	112.7	3,783,200	3,144,600
Ottawa	21,700	21,000	122.2	130.3	2,652,800	2,737,200
Richland	47,700	45,400	116.3	129.3	5,549,000	5,871,600
Sandusky	69,400	64,400	136.0	135.7	9,441,800	8,739,800
Seneca	80,800	74,200	128.2	141.4	10,355,500	10,490,800
Wyandot	57,900	55,200	135.1	145.1	7,820,200	8,006,800
DISTRICT 20	**522,100**	**491,500**	**128.5**	**132.0**	**67,088,000**	**64,893,900**
Ashtabula	23,500	21,800	119.2	100.4	2,800,500	2,188,900
Columbiana	30,100	30,500	111.2	125.6	3,347,900	3,830,100
Cuyahoga	*	*	*	*	*	*
Geauga	11,400	10,600	100.3	92.6	1,143,400	981,200
Lake	*	*	*	*	*	*
Mahoning	19,200	19,300	105.3	122.5	2,021,100	2,364,900
Medina	29,500	27,400	119.2	104.3	3,515,500	2,858,000
Portage	28,400	26,100	109.2	108.8	3,102,400	2,839,500
Stark	42,500	42,000	114.2	122.9	4,853,700	5,161,400
Summit	3,800	3,900	106.3	120.5	403,800	470,000
Trumbull	17,600	17,700	121.2	114.4	2,132,300	2,024,100
Wayne	77,600	75,200	121.2	123.5	9,401,700	9,290,900
Other Counties	2,900	2,600	97.8	92.7	283,600	241,000
DISTRICT 30	**286,500**	**277,100**	**115.2**	**116.4**	**33,005,900**	**32,250,000**
Auglaize	60,100	58,100	128.7	139.1	7,734,600	8,082,900
Champaign	90,900	84,600	136.6	131.3	12,418,300	11,109,000
Clark	77,900	69,400	128.7	136.1	10,025,300	9,444,200
Darke	114,800	108,400	137.6	129.4	15,797,000	14,028,200
Hardin	81,500	77,400	128.7	129.3	10,488,600	10,009,600
Logan	70,900	63,200	128.7	126.3	9,124,500	7,983,800
Mercer	76,500	69,000	130.7	137.2	9,996,600	9,463,400
Miami	67,300	63,200	131.7	133.0	8,861,000	8,404,800
Shelby	56,600	51,800	131.7	128.3	7,452,200	6,648,200
DISTRICT 40	**696,500**	**645,100**	**131.9**	**132.0**	**91,898,100**	**85,174,100**
Delaware	56,700	49,800	127.3	115.6	7,216,600	5,755,200
Fairfield	82,700	74,800	130.2	131.2	10,768,700	9,816,400
Fayette	83,200	80,500	137.1	126.3	11,404,000	10,170,200
Franklin	43,100	41,500	128.3	114.6	5,527,800	4,755,300
Knox	60,200	58,000	119.4	122.6	7,190,600	7,110,100
Licking	66,700	62,400	123.4	122.5	8,228,200	7,644,600
Madison	92,000	88,900	137.1	127.3	12,610,200	11,318,600
Marion	77,100	69,100	127.3	130.5	9,813,100	9,018,300
Morrow	47,900	45,100	119.4	123.6	5,721,400	5,573,700
Pickaway	115,300	99,400	124.3	111.6	14,336,400	11,097,700
Ross	72,500	64,500	118.5	108.7	8,588,800	7,011,800
Union	73,900	68,400	131.2	117.5	9,695,200	8,038,700
DISTRICT 50	**871,300**	**802,400**	**127.5**	**121.3**	**111,101,000**	**97,310,600**

OHIO COUNTY ESTIMATES, 1985-1986
CORN FOR GRAIN: ACRES, YIELD AND PRODUCTION

County & District	Acreage Harvested		Yield		Production	
	1985	1986	1985	1986	1985	1986
	Acres		Bu. per acre		Bushels	
Belmont	4,900	4,100	102.0	120.7	499,700	494,800
Carroll	17,300	16,900	101.5	111.7	1,755,600	1,888,000
Coshocton	45,700	39,900	119.7	131.7	5,472,400	5,253,400
Harrison	5,100	4,700	102.5	104.8	522,700	492,700
Holmes	30,500	30,900	113.7	118.7	3,466,600	3,667,700
Jefferson	5,100	4,900	100.5	100.7	512,400	493,600
Tuscarawas	31,000	31,000	106.6	125.7	3,303,200	3,896,000
DISTRICT 60	**139,600**	**132,400**	**111.3**	**122.3**	**15,532,600**	**16,186,200**
Butler	51,400	50,200	122.8	110.6	6,312,600	5,550,000
Clermont	17,500	17,200	114.8	114.4	2,009,400	1,968,300
Clinton	104,900	92,800	133.8	139.7	14,035,200	12,959,600
Greene	88,800	78,800	136.8	137.5	12,147,100	10,838,700
Hamilton	4,900	4,900	119.8	121.2	587,100	594,000
Montgomery	39,000	35,200	131.8	120.3	5,140,200	4,233,000
Preble	98,500	85,000	139.8	122.2	13,769,000	10,386,500
Warren	52,800	48,000	129.8	122.2	6,853,500	5,865,300
DISTRICT 70	**457,800**	**412,100**	**132.9**	**127.1**	**60,854,100**	**52,395,400**
Adams	25,400	22,900	97.0	110.7	2,462,600	2,534,500
Brown	41,900	41,800	113.3	120.3	4,746,400	5,026,700
Gallia	5,500	5,200	103.1	102.7	566,900	533,800
Highland	80,000	73,300	116.3	126.1	9,307,300	9,244,800
Jackson	8,600	8,000	120.9	113.8	1,040,100	910,000
Lawrence	2,500	2,400	102.0	117.4	255,100	281,700
Pike	18,700	18,000	113.3	106.6	2,118,300	1,918,200
Scioto	13,500	13,200	112.3	107.5	1,515,500	1,419,600
DISTRICT 80	**196,100**	**184,800**	**112.2**	**118.3**	**22,012,200**	**21,869,300**
Athens	7,200	5,500	95.1	83.9	685,000	461,300
Guernsey	6,200	6,400	121.5	116.5	753,000	745,400
Hocking	8,300	7,200	111.3	125.3	924,000	902,000
Meigs	7,700	6,900	95.1	81.6	732,500	563,200
Monroe	2,900	2,800	108.3	100.5	314,000	281,500
Morgan	6,500	6,700	110.3	117.1	717,100	784,900
Muskingum	30,400	30,800	124.5	125.4	3,784,400	3,862,900
Noble	2,900	2,600	101.2	92.6	293,500	240,700
Perry	28,900	23,300	127.5	124.4	3,685,500	2,899,100
Vinton	2,700	2,100	121.4	99.0	327,900	208,000
Washington	11,300	11,200	111.3	109.5	1,258,000	1,226,300
DISTRICT 90	**116,000**	**105,500**	**117.2**	**115.4**	**13,474,900**	**12,175,300**
STATE	**4,030,000**	**3,720,000**	**127.0**	**128.0**	**511,810,000**	**476,160,000**

* Counties with less than 1,000 acres not published. Counties with more than 1,000 acres are also not published, if necessary, to preserve the confidentiality of counties with less than 1,000 acres.

CORN SILAGE: HARVESTED ACREAGE, YIELD AND PRODUCTION, BY DISTRICTS, OHIO 1985-86

District	Harvested acres		Yield		Production	
	1985	1986	1985	1986	1985	1986
	Acres		Tons per acre		Thousand tons	
1	25,100	18,800	17.4	17.9	437.5	336.0
2	21,200	17,400	15.2	15.9	322.0	276.4
3	43,100	39,600	16.2	15.9	696.7	629.1
4	36,100	27,600	18.2	17.9	657.4	493.3
5	29,300	20,100	17.5	17.4	513.6	349.3
6	13,800	11,400	16.1	16.4	221.7	186.8
7	13,400	10,400	18.0	18.4	241.4	191.0
8	8,100	6,700	17.5	18.4	142.0	123.1
9	9,900	8,000	16.9	16.9	167.7	135.0
State	200,000	160,000	17.0	17.0	3,400.0	2,720.0

OHIO COUNTY ESTIMATES, 1985-1986
SOYBEANS: ACREAGE, YIELD AND PRODUCTION

County & District	Acreage Harvested		Yield		Production	
	1985	1986	1985	1986	1985	1986
	Acres		Bu. per acre		Bushels	
Allen	78,300	73,400	41.6	42.3	3,255,600	3,102,800
Defiance	92,200	73,300	35.3	33.9	3,250,200	2,486,000
Fulton	83,600	76,300	41.7	43.3	3,484,400	3,300,400
Hancock	123,000	114,700	43.5	45.2	5,348,900	5,187,000
Henry	95,300	89,200	42.9	43.7	4,086,800	3,902,300
Lucas	37,700	34,700	40.2	42.3	1,514,500	1,466,900
Paulding	100,300	93,600	39.1	39.8	3,918,500	3,726,700
Putnam	121,900	114,500	42.2	41.3	5,141,900	4,727,700
Van Wert	104,500	97,700	43.2	44.4	4,512,800	4,341,400
Williams	70,600	64,700	37.6	35.9	2,651,800	2,321,600
Wood	121,700	114,400	42.7	43.2	5,194,500	4,937,200
DISTRICT 10	**1,029,100**	**946,500**	**41.2**	**41.7**	**42,359,900**	**39,500,000**
Ashland	20,900	20,600	39.1	36.7	816,300	755,500
Crawford	85,800	82,800	44.0	43.7	3,772,300	3,619,100
Erie	29,200	27,700	41.7	40.8	1,216,500	1,130,000
Huron	85,600	83,800	39.3	39.3	3,360,600	3,292,300
Lorain	51,400	48,300	37.4	34.2	1,920,100	1,650,100
Ottawa	60,800	59,800	40.6	40.2	2,466,100	2,403,500
Richland	33,300	33,900	36.1	37.7	1,200,700	1,277,400
Sandusky	89,100	86,600	42.6	41.2	3,792,400	3,567,700
Seneca	122,100	117,200	41.4	43.2	5,050,300	5,063,900
Wyandot	92,900	89,800	43.4	45.2	4,028,600	4,060,500
DISTRICT 20	**671,100**	**650,500**	**41.2**	**41.2**	**27,623,900**	**26,820,000**
Ashtabula	11,200	11,700	38.9	28.4	435,200	332,500
Columbiana	1,800	1,700	34.2	38.1	61,600	64,700
Cuyahoga	*	*	*	*	*	*
Geauga	*	*	*	*	*	*
Lake	*	*	*	*	*	*
Mahoning	3,800	4,000	37.6	34.5	142,700	138,100
Medina	20,000	20,700	38.0	35.5	760,900	735,600
Portage	11,000	10,600	34.4	33.5	378,700	355,200
Stark	9,100	7,500	35.2	38.1	320,600	285,600
Summit	1,600	1,600	34.8	34.4	55,600	55,100
Trumbull	12,900	12,900	39.3	37.1	506,400	478,100
Wayne	14,500	15,100	42.3	39.6	613,000	598,000
Other Counties	1,900	1,700	39.4	32.0	74,900	54,400
DISTRICT 30	**87,800**	**87,500**	**38.2**	**35.4**	**3,349,600**	**3,097,300**
Auglaize	74,400	73,200	41.1	43.2	3,057,400	3,165,300
Champaign	61,500	57,400	45.7	42.5	2,808,800	2,442,000
Clark	62,200	58,500	42.8	41.3	2,661,300	2,413,200
Darke	139,600	130,100	45.3	42.0	6,320,200	5,470,400
Hardin	102,700	96,100	39.9	41.3	4,097,800	3,964,300
Logan	68,000	64,900	40.0	39.8	2,720,000	2,580,500
Mercer	91,600	86,700	42.8	43.7	3,919,200	3,792,000
Miami	67,400	65,500	45.8	42.3	3,084,900	2,773,600
Shelby	78,700	73,600	45.0	42.7	3,539,500	3,145,900
DISTRICT 40	**746,100**	**706,000**	**43.2**	**42.1**	**32,209,100**	**29,747,200**
Delaware	67,800	66,700	42.7	38.6	2,896,800	2,571,400
Fairfield	31,600	30,200	42.6	41.6	1,346,900	1,257,400
Fayette	91,100	87,200	42.7	42.7	3,892,300	3,720,200
Franklin	54,600	51,900	42.1	38.1	2,299,900	1,979,500
Knox	24,200	23,700	39.1	39.4	946,600	933,200
Licking	49,700	48,500	39.1	39.2	1,944,000	1,809,600
Madison	114,200	108,600	46.3	42.1	5,291,500	4,577,400
Marion	98,000	91,400	41.2	41.8	4,039,600	3,824,300
Morrow	53,700	53,400	43.0	40.6	2,310,500	2,168,400
Pickaway	97,300	93,500	41.1	37.5	4,001,000	3,508,400
Ross	47,900	46,700	39.1	38.6	1,873,600	1,800,300
Union	105,300	103,200	41.6	38.6	4,382,800	3,978,500
DISTRICT 50	**835,400**	**805,000**	**42.2**	**40.0**	**35,225,500**	**32,218,600**

OHIO COUNTY ESTIMATES, 1985-1986
SOYBEANS: ACREAGE, YIELD AND PRODUCTION

County & District	Acreage Harvested		Yield		Production	
	1985	1986	1985	1986	1985	1986
	Acres		Bu. per acre		Bushels	
Belmont	*	*	*	*	*	*
Carroll	*	*	*	*	*	*
Coshocton	1,100	1,000	35.5	37.3	39,000	37,300
Harrison	1,000	*	24.6	*	24,600	*
Holmes	2,300	2,600	42.8	35.8	98,500	93,100
Jefferson	*	*	*	*	*	*
Tuscarawas	3,300	3,200	26.1	38.2	86,100	122,300
Other Counties	1,300	2,200	24.5	37.4	31,900	82,200
DISTRICT 60	**9,000**	**9,600**	**31.1**	**37.2**	**280,100**	**334,900**
Butler	30,700	30,100	39.0	37.7	1,197,300	1,134,100
Clermont	30,300	30,200	34.0	33.9	1,030,200	1,024,000
Clinton	71,400	64,600	41.8	45.1	2,984,400	2,914,300
Greene	49,900	48,300	45.4	43.7	2,265,400	2,111,900
Hamilton	6,600	6,000	40.0	41.2	264,000	246,900
Montgomery	44,400	42,300	45.5	40.2	2,020,100	1,698,500
Preble	65,600	62,000	46.3	40.7	3,037,100	2,520,300
Warren	46,800	42,500	38.0	42.1	1,778,300	1,790,900
DISTRICT 70	**345,700**	**326,000**	**42.2**	**41.2**	**14,576,800**	**13,440,900**
Adams	12,000	10,900	32.2	36.6	386,100	398,700
Brown	46,900	45,900	32.7	34.1	1,532,500	1,566,900
Gallia	*	*	*	*	*	*
Highland	57,200	56,300	36.2	41.0	2,070,300	2,306,200
Jackson	1,000	*	34.7	*	34,700	*
Lawrence	*	*	*	*	*	*
Pike	11,000	10,300	32.1	41.3	352,800	425,900
Scioto	9,700	7,300	34.2	41.5	331,500	302,600
Other Counties	1,400	2,300	34.1	35.7	43,600	82,000
DISTRICT 80	**139,200**	**133,000**	**34.1**	**38.2**	**4,751,500**	**5,082,300**
Athens	*	*	*	*	*	*
Guernsey	*	*	*	*	*	*
Hocking	*	*	*	*	*	*
Meigs	*	*	*	*	*	*
Monroe	*	*	*	*	*	*
Morgan	*	*	*	*	*	*
Muskingum	*	1,000	*	34.0	*	34,000
Noble	*	*	*	*	*	*
Perry	3,100	2,800	34.8	38.0	108,000	106,500
Vinton	*	*	*	*	*	*
Washington	*	*	*	*	*	*
Other Counties	3,500	2,700	34.5	32.7	120,600	88,300
DISTRICT 90	**6,600**	**6,500**	**34.6**	**36.2**	**228,600**	**228,800**
STATE	**3,870,000**	**3,670,000**	**41.5**	**41.0**	**160,605,000**	**150,470,000**

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OHIO COUNTY ESTIMATES, 1985-1986
ALL WHEAT: ACREAGE, YIELD AND PRODUCTION

County & District	Acreage Harvested		Yield		Production	
	1985	1986	1985	1986	1985	1986
	Acres		Bu. per acre		Bushels	
Allen	20,000	21,600	69.8	47.5	1,396,800	1,026,900
Defiance	22,000	23,600	54.6	43.7	1,200,100	1,031,200
Fulton	12,700	13,500	63.2	50.8	802,800	686,000
Hancock	43,000	44,300	66.3	49.4	2,849,800	2,188,900
Henry	29,000	29,600	69.3	52.1	2,010,600	1,541,300
Lucas	5,500	5,000	64.2	49.3	353,300	246,400
Paulding	25,000	24,000	60.2	49.9	1,503,900	1,197,700
Putnam	40,900	41,200	65.3	46.1	2,668,900	1,897,500
Van Wert	28,400	28,400	68.8	53.8	1,954,600	1,528,700
Williams	22,200	23,300	62.2	43.4	1,380,700	1,010,900
Wood	44,000	45,500	66.3	53.1	2,916,000	2,416,600
DISTRICT 10	**[illegible] 700**	**300,000**	**65.0**	**49.2**	**19,037,500**	**14,772,100**
Ashland	8,900	9,800	55.7	37.1	495,500	363,500
Crawford	24,600	27,000	62.8	50.5	1,543,800	1,363,100
Erie	7,000	7,600	61.7	49.6	432,200	376,600
Huron	20,200	20,300	59.7	48.3	1,206,400	981,500
Lorain	8,200	8,900	57.7	37.9	473,100	337,200
Ottawa	10,600	10,600	61.7	52.0	654,500	551,000
Richland	12,400	13,300	60.7	42.5	753,100	564,600
Sandusky	15,000	15,400	62.8	49.1	941,400	755,800
Seneca	29,300	30,000	63.8	45.1	1,868,400	1,352,500
Wyandot	32,800	34,100	64.3	50.9	2,108,200	1,734,500
DISTRICT 20	**169,000**	**177,000**	**62.0**	**47.3**	**10,476,600**	**8,380,300**
Ashtabula	2,600	3,200	53.8	34.9	140.000	111,700
Columbiana	6,700	8,200	50.8	42.1	340,300	345,400
Cuyahoga	*	*	*	*	*	*
Geauga	*	*	*	*	*	*
Lake	*	*	*	*	*	*
Mahoning	3,700	4,600	53.8	41.7	199,200	191,600
Medina	4,700	6,300	53.8	32.9	253,000	207,500
Portage	5,300	5,900	58.9	36.5	312,200	215,300
Stark	8,700	10,800	55.9	37.7	486,000	407,300
Summit	*	1,100	*	39.6	*	43,600
Trumbull	2,800	3,100	54.9	41.6	153,600	129,100
Wayne	13,600	15,500	55.9	40.4	759,800	626,800
Other Counties	2,000	1,300	53.0	39.3	105,300	51,100
DISTRICT 30	**50,100**	**60,000**	**54.9**	**38.8**	**2,749,400**	**2,329,400**
Auglaize	21,300	23,900	66.4	44.7	1,415,000	1,067,300
Champaign	12,500	14,300	65.5	49.4	818,400	707,100
Clark	9,000	9,800	61.6	49.3	554,600	482,800
Darke	22,300	26,500	66.4	43.7	1,481,400	1,158,500
Hardin	30,700	33,500	65.5	43.2	2,009,900	1,448,700
Logan	12,200	14,300	65.0	41.8	792,900	598,300
Mercer	25,400	28,700	67.4	50.3	1,711,800	1,443,500
Miami	13,700	15,200	66.4	47.3	910,100	718,800
Shelby	17,100	18,800	67.4	46.3	1,152,500	871,300
DISTRICT 40	**164,200**	**185,000**	**66.1**	**45.9**	**10,846,600**	**8,496,300**
Delaware	11,300	13,900	69.3	45.4	783,100	631,300
Fairfield	12,800	15,100	59.1	46.9	756,600	708,400
Fayette	12,800	15,600	57.1	46.1	730,500	718,700
Franklin	7,800	9,800	55.0	43.9	429,300	430,300
Knox	8,500	10,300	59.1	37.9	502,400	390,500
Licking	9,900	12,100	55.0	42.1	544,800	509,100
Madison	13,100	16,100	61.2	49.3	801,100	793,500
Marion	22,000	27,500	69.3	46.0	1,524,700	1,264,100
Morrow	9,300	12,100	62.2	43.5	578,200	526,400
Pickaway	21,200	25,100	55.4	46.4	1,175,400	1,165,700
Ross	17,600	20,900	54.0	41.8	950,700	873,600
Union	17,300	21,500	69.3	45.8	1,198,900	984,200
DISTRICT 50	**163,600**	**200,000**	**61.0**	**45.0**	**9,975,700**	**8,995,800**

OHIO COUNTY ESTIMATES, 1985-1986
ALL WHEAT: ACREAGE, YIELD AND PRODUCTION

County & District	Acreage Harvested		Yield		Production	
	1985	1986	1985	1986	1985	1986
	Acres		Bu. per acre		Bushels	
Belmont	*	*	*	*	*	*
Carroll	2,000	2,300	43.4	38.5	86,700	88,600
Coshocton	3,500	4,200	51.6	40.9	180,700	171,800
Harrison	*	*	*	*	*	*
Holmes	5,300	6,000	48.5	33.9	257,200	203,200
Jefferson	*	*	*	*	*	*
Tuscarawas	3,400	3,700	46.4	37.1	157,900	137,400
Other Counties	1,600	1,800	45.0	35.4	72,200	63,700
DISTRICT 60	**15,800**	**18,000**	**47.8**	**36.9**	**754,700**	**664,700**
Butler	7,200	8,600	53.7	39.8	386,300	342,400
Clermont	*	*	*	*	*	*
Clinton	11,400	12,500	55.7	49.3	634,800	616,200
Greene	9,200	10,900	55.7	47.5	512,300	517,400
Hamilton	*	*	*	*	*	*
Montgomery	6,400	7,100	61.8	48.4	395,200	343,300
Preble	12,500	14,600	62.8	46.5	784,600	678,400
Warren	5,500	6,600	50.6	42.6	278,400	281,300
Other Counties	3,300	3,700	51.0	35.1	167,000	130,000
DISTRICT 70	**55,500**	**64,000**	**56.9**	**45.5**	**3,158,600**	**2,909,000**
Adams	4,500	5,000	41.5	36.4	186,800	182,200
Brown	6,600	8,000	49.8	34.2	328,800	273,800
Gallia	*	*	*	*	*	*
Highland	13,100	15,500	50.3	41.3	659,500	640,700
Jackson	*	*	*	*	*	*
Lawrence	*	*	*	*	*	*
Pike	1,900	2,100	44.1	36.0	83,800	75,700
Scioto	*	1,000	*	29.8	*	29,800
Other Counties	2,100	1,400	42.0	34.2	88,100	47,900
DISTRICT 80	**28,200**	**33,000**	**47.8**	**37.9**	**1,347,000**	**1,250,100**
Athens	*	*	*	*	*	*
Guernsey	*	*	*	*	*	*
Hocking	1,000	1,000	42.6	42.9	42,600	42,900
Meigs	*	*	*	*	*	*
Monroe	*	*	*	*	*	*
Morgan	1,100	1,400	51.2	36.4	56,300	51,000
Muskingum	2,800	3,600	51.2	36.7	143,300	132,200
Noble	*	*	*	*	*	*
Perry	3,200	3,900	54.2	39.7	173,400	154,700
Vinton	*	*	*	*	*	*
Washington	1,400	1,500	51.1	39.9	71,600	59,900
Other Counties	1,400	1,600	48.0	38.5	66,700	61,600
DISTRICT 90	**10,900**	**13,000**	**50.8**	**38.6**	**553,900**	**502,300**
STATE	**950,000**	**1,050,000**	**62.0**	**46.0**	**58,900,000**	**48,300,000**

* Counties with less than 1,000 acres not published. Counties with more than 1,000 acres are also not published, if necessary, to preserve the confidentiality of counties with less than 1,000 acres.

OHIO COUNTY ESTIMATES, 1985-1986
OATS FOR GRAIN: ACREAGE, YIELD AND PRODUCTION

County & District	Acreage Harvested		Yield		Production	
	1985	1986	1985	1986	1985	1986
	Acres		Bu. per acre		Bushels	
Allen	3,100	2,100	100.0	93.3	309,900	196,000
Defiance	6,200	4,200	86.0	76.4	533,000	320,900
Fulton	*	*	*	*	*	*
Hancock	2,400	1,200	90.0	73.6	215,900	88,300
Henry	2,700	1,800	87.5	69.4	236,200	125,000
Lucas	*	*	*	*	*	*
Paulding	6,000	4,200	90.0	89.6	539,900	376,200
Putnam	4,300	2,900	100.0	93.3	429,900	270,700
Van Wert	3,600	2,500	100.0	96.2	359,900	240,400
Williams	4,800	2,300	77.0	67.4	369,500	155,000
Wood	6,200	3,100	86.0	89.6	533,100	277,700
Other Counties	3,000	1,700	86.7	82.7	260,000	140,600
DISTRICT 10	**42,300**	**26,000**	**89.5**	**84.3**	**3,787,300**	**2,190,800**
Ashland	9,600	5,000	88.1	79.6	846,200	398,100
Crawford	4,000	1,900	89.1	87.6	356,500	166,400
Erie	2,400	1,100	83.3	84.5	199,900	93,000
Huron	6,900	4,300	81.4	86.5	561,400	371,800
Lorain	3,700	2,400	82.3	79.3	304,600	190,400
Ottawa	1,900	1,100	72.6	80.8	138,000	88,900
Richland	10,200	5,000	84.3	73.4	859,600	366,900
Sandusky	2,600	1,200	85.2	79.9	221,600	95,900
Seneca	9,800	4,500	88.1	87.6	863,800	394,400
Wyandot	3,500	1,500	92.0	82.4	322,100	123,600
DISTRICT 20	**54,600**	**28,000**	**85.6**	**81.8**	**4,673,700**	**2,289,400**
Ashtabula	10,300	6,000	87.3	68.1	899,100	408,400
Columbiana	8,900	6,100	82.3	70.6	732,700	430,600
Cuyahoga	*	*	*	*	*	*
Geauga	5,600	3,700	84.3	69.2	472,200	256,200
Lake	*	*	*	*	*	*
Mahoning	4,500	2,900	83.3	79.2	375,000	229,800
Medina	7,300	3,500	80.3	78.0	586,500	272,900
Portage	4,500	3,100	76.4	68.5	343,700	212,400
Stark	12,500	6,700	82.3	76.9	1,029,100	515,400
Summit	1,600	1,000	77.4	61.3	123,800	61,300
Trumbull	7,200	3,500	82.3	71.1	592,800	248,900
Wayne	18,200	10,900	87.8	77.6	1,597,700	845,600
Other Counties	1,300	600	74.4	65.0	96,700	39,000
DISTRICT 30	**81,900**	**48,000**	**83.6**	**73.3**	**6,849,300**	**3,520,500**
Auglaize	8,900	2,800	92.1	81.3	819,300	227,600
Champaign	2,200	*	87.2	*	191,900	*
Clark	1,100	*	85.3	*	93,800	*
Darke	6,200	2,700	91.6	80.7	567,800	218,000
Hardin	6,100	1,600	89.1	87.6	543,800	140,200
Logan	4,200	1,200	89.1	75.8	374,400	90,900
Mercer	10,600	4,600	95.0	87.7	1,006,700	403,300
Miami	2,300	*	89.2	*	205,100	*
Shelby	6,000	2,200	84.3	82.2	505,800	180,800
Other Counties		1,900		79.5		151,000
DISTRICT 40	**47,600**	**17,000**	**90.5**	**83.0**	**4,308,600**	**1,411,800**
Delaware	2,400	*	84.4	*	202,500	*
Fairfield	2,200	*	81.4	*	179,000	*
Fayette	1,000	*	84.4	*	84,400	*
Franklin	*	*	*	*	*	*
Knox	9,000	4,600	82.4	63.3	741,200	291,100
Licking	3,800	1,900	81.3	65.7	309,100	124,800
Madison	1,300	*	95.4	*	124,000	*
Marion	3,100	1,200	92.4	83.3	286,400	99,900
Morrow	5,900	1,900	80.4	79.1	474,100	150,300
Pickaway	*	*	*	*	*	*
Ross	*	*	*	*	*	*
Union	2,700	1,100	88.4	73.6	238,600	81,000
Other Counties	2,500	3,300	78.3	68.2	195,800	225,100
DISTRICT 50	**33,900**	**14,000**	**83.6**	**69.4**	**2,835,100**	**972,200**

OHIO COUNTY ESTIMATES, 1985-1986
OATS FOR GRAIN: ACREAGE, YIELD AND PRODUCTION

County & District	Acreage Harvested		Yield		Production	
	1985	1986	1985	1986	1985	1986
	Acres		Bu. per acre		Bushels	
Belmont	1,700	*	70.0	*	119,000	*
Carroll	4,900	2,800	78.8	62.4	386,100	174,600
Coshocton	2,600	1,600	73.1	64.8	190,000	103,700
Harrison	2,000	1,100	70.0	68.8	140,000	75,700
Holmes	15,000	8,900	82.9	70.4	1,244,100	626,700
Jefferson	1,400	*	71.6	*	100,200	*
Tuscarawas	4,700	2,800	77.2	71.1	363,000	199,000
Other Counties		1,800		60.2		108,300
DISTRICT 60	**32,300**	**19,000**	**78.7**	**67.8**	**2,542,400**	**1,288,000**
Butler	*	*	*	*	*	*
Clermont	*	*	*	*	*	*
Clinton	1,400	*	81.4	*	113,900	*
Greene	1,500	*	91.1	*	136,700	*
Hamilton	*	*	*	*	*	*
Montgomery	*	*	*	*	*	*
Preble	1,800	*	93.8	*	168,900	*
Warren	1,000	*	76.0	*	76,000	*
Other Counties	1,700	2,500	81.1	69.0	137,900	172,500
DISTRICT 70	**7,400**	**2,500**	**85.6**	**69.0**	**633,400**	**172,500**
Adams	*	*	*	*	*	*
Brown	*	*	*	*	*	*
Gallia	*	*	*	*	*	*
Highland	1,000	*	72.2	*	72,200	*
Jackson	*	*	*	*	*	*
Lawrence	*	*	*	*	*	*
Pike	*	*	*	*	*	*
Scioto	*	*	*	*	*	*
Other Counties	1,700	1,000	70.6	64.8	120,100	64,800
DISTRICT 80	**2,700**	**1,000**	**71.2**	**64.8**	**192,300**	**64,800**
Athens	*	*	*	*	*	*
Guernsey	*	*	*	*	*	*
Hocking	*	*	*	*	*	*
Meigs	*	*	*	*	*	*
Monroe	*	*	*	*	*	*
Morgan	*	*	*	*	*	*
Muskingum	2,500	1,400	73.5	56.0	183,800	78,400
Noble	*	*	*	*	*	*
Perry	*	*	*	*	*	*
Vinton	*	*	*	*	*	*
Washington	*	*	*	*	*	*
Other Counties	4,800	3,100	71.7	55.4	344,100	171,600
DISTRICT 90	**7,300**	**4,500**	**72.3**	**55.6**	**527,900**	**250,000**
STATE	**310,000**	**160,000**	**85.0**	**76.0**	**26,350,000**	**12,160,000**

* Counties with less than 1,000 acres not published. Counties with more than 1000 acres are also not published, if necessary to preserve the confidentiality of counties with less than 1,000 acres.

OHIO COUNTY ESTIMATES, 1985-1986
ALL HAY: ACREAGE, YIELD AND PRODUCTION

County & District	Acreage Harvested		Yield		Production	
	1985	1986	1985	1986	1985	1986
	Acres		Bu. per acre		Bushels	
Allen	7,400	7,200	3.49	3.47	25,800	25,000
Defiance	8,600	8,800	3.58	3.47	30,800	30,500
Fulton	5,200	5,900	3.94	3.59	20,500	21,200
Hancock	8,400	7,900	4.02	3.62	33,800	28,600
Henry	6,800	7,600	3.76	3.62	25,600	27,500
Lucas	2,000	2,100	3.75	3.81	7,500	8,000
Paulding	6,200	6,600	2.24	2.24	13,900	14,800
Putnam	12,500	12,900	3.31	3.21	41,400	41,400
Van Wert	4,100	4,100	3.59	3.15	14,700	12,900
Williams	11,700	12,500	3.22	4.04	37,700	50,500
Wood	7,200	7,400	3.76	3.15	27,100	23,300
DISTRICT 10	**80,100**	**83,000**	**3.48**	**3.42**	**278,800**	**283,700**
Ashland	33,500	34,500	3.74	3.88	125,300	134,000
Crawford	8,900	9,500	3.90	3.82	34,700	36,300
Erie	5,900	5,700	3.66	4.21	21,600	24,000
Huron	8,600	9,700	3.30	3.71	28,400	36,000
Lorain	14,600	14,800	3.22	4.09	47,000	60,500
Ottawa	7,700	8,800	3.22	3.15	24,800	27,700
Richland	22,700	21,900	3.83	3.41	86,900	74,600
Sandusky	6,400	7,000	3.91	3.81	25,000	26,700
Seneca	13,900	14,300	3.57	3.33	49,600	47,600
Wyandot	8,900	8,800	4.09	3.06	36,400	26,900
DISTRICT 20	**131,100**	**135,000**	**3.66**	**3.66**	**473,700**	**494,300**
Ashtabula	38,200	39,600	3.39	2.74	129,600	108,400
Columbiana	33,200	34,100	3.67	3.51	121,800	119,700
Cuyahoga	1,300	1,400	3.00	2.36	3,900	3,300
Geauga	15,800	17,200	2.84	3.29	44,900	56,600
Lake	3,300	3,900	2.85	2.31	9,400	9,000
Mahoning	14,100	14,900	3.57	3.09	50,400	46,000
Medina	23,100	23,200	3.67	3.22	84,700	74,700
Portage	16,400	17,000	3.49	3.07	57,200	52,200
Stark	26,300	27,500	3.58	3.40	94,100	93,600
Summit	4,700	4,500	2.96	2.38	13,900	10,700
Trumbull	21,900	22,500	3.30	3.16	72,300	71,100
Wayne	58,400	59,200	4.40	3.86	257,100	228,400
DISTRICT 30	**256,700**	**265,000**	**3.66**	**3.30**	**939,300**	**873,700**
Auglaize	14,700	15,700	3.93	4.18	57,800	65,700
Champaign	10,800	11,000	3.66	3.45	39,500	38,000
Clark	8,700	8,300	3.48	3.02	30,300	25,100
Darke	16,400	17,300	4.20	4.22	68,800	73,000
Hardin	7,900	7,900	3.75	2.66	29,600	21,000
Logan	16,000	16,300	3.66	3.11	58,500	50,700
Mercer	24,600	23,800	4.28	3.98	105,400	94,800
Miami	7,700	8,300	3.83	4.45	29,500	36,900
Shelby	19,700	19,400	3.92	3.68	77,300	71,300
DISTRICT 40	**126,500**	**128,000**	**3.93**	**3.72**	**496,700**	**476,500**
Delaware	9,300	9,300	3.60	2.81	33,500	26,100
Fairfield	19,400	19,000	2.79	2.78	54,200	52,900
Fayette	9,100	8,800	3.24	2.51	29,500	22,100
Franklin	5,200	5,100	3.42	2.16	17,800	11,000
Knox	28,000	29,900	3.42	3.01	95,800	90,100
Licking	28,400	30,200	3.15	2.57	89,500	77,600
Madison	8,200	8,300	3.24	2.55	26,600	21,200
Marion	5,800	6,200	3.52	2.77	20,400	17,200
Morrow	12,500	12,400	3.15	3.10	39,400	38,400
Pickaway	10,600	11,700	3.15	2.80	33,400	32,800
Ross	19,900	21,400	2.88	2.72	57,400	58,300
Union	12,600	12,700	3.60	2.89	45,400	36,700
DISTRICT 50	**169,000**	**175,000**	**3.21**	**2.77**	**542,900**	**484,400**

OHIO COUNTY ESTIMATES, 1985-1986
ALL HAY: ACREAGE, YIELD AND PRODUCTION

County & District	Acreage Harvested		Yield		Production	
	1985	1986	1985	1986	1985	1986
	Acres		Bu. per acre		Bushels	
Belmont	33,100	34,100	2.59	2.09	85,800	71,400
Carroll	31,700	31,800	3.31	2.91	104,800	92,400
Coshocton	30,800	31,600	2.77	3.03	85,400	95,700
Harrison	22,300	21,800	2.77	2.48	61,800	54,100
Holmes	44,900	46,700	3.40	3.38	152,600	158,000
Jefferson	18,200	17,800	3.22	2.83	58,600	50,400
Tuscarawas	29,500	31,200	3.04	2.94	89,700	91,700
DISTRICT 60	**210,500**	**215,000**	**3.03**	**2.85**	**638,700**	**613,700**
Butler	20,200	20,100	2.92	2.61	58,900	52,400
Clermont	13,700	11,700	2.56	2.33	35,100	27,300
Clinton	9,500	8,900	2.82	2.76	26,800	24,600
Greene	10,600	9,900	3.18	3.20	33,700	31,700
Hamilton	4,400	3,900	3.09	3.05	13,600	11,900
Montgomery	7,600	7,500	3.36	2.72	25,500	20,400
Preble	12,000	11,100	3.63	2.97	43,500	33,000
Warren	12,400	10,900	3.00	3.06	37,200	33,400
DISTRICT 70	**90,400**	**84,000**	**3.03**	**2.79**	**274,300**	**234,700**
Adams	31,400	30,500	2.48	2.23	77,900	68,100
Brown	21,700	21,500	2.76	2.38	60,000	51,200
Gallia	20,600	20,200	2.29	1.92	47,200	38,700
Highland	25,600	22,200	2.86	3.01	73,300	66,800
Jackson	17,800	17,700	2.39	2.66	42,500	47,100
Lawrence	9,000	9,100	2.10	2.24	18,900	20,400
Pike	12,600	12,400	2.39	2.18	30,100	27,000
Scioto	12,800	11,400	2.77	2.78	35,400	31,700
DISTRICT 80	**151,500**	**145,000**	**2.54**	**2.42**	**385,300**	**351,000**
Athens	18,300	18,400	1.96	2.38	35,800	43,800
Guernsey	33,900	33,000	2.61	2.16	88,400	71,400
Hocking	7,500	7,400	2.24	1.96	16,800	14,500
Meigs	16,600	16,900	2.33	1.62	38,600	27,300
Monroe	24,500	24,200	2.23	1.75	54,700	42,300
Morgan	18,200	18,100	2.42	2.35	44,100	42,600
Muskingum	40,900	40,700	2.89	2.48	118,000	100,800
Noble	20,800	21,600	1.86	1.92	38,700	41,500
Perry	15,700	14,700	2.24	2.27	35,100	33,400
Vinton	8,000	7,000	2.05	2.11	16,400	14,800
Washington	29,800	28,000	2.61	2.24	77,700	62,600
DISTRICT 90	**234,200**	**230,000**	**2.41**	**2.15**	**564,300**	**495,000**
STATE	**1,450,000**	**1,460,000**	**3.17**	**2.95**	**4,600,000**	**4,307,000**

* Counties with less than 1,000 acres not published. Counties with more than 1,000 acres are also not published, if necessary, to preserve the confidentiality of counties with less than 1,000 acres.

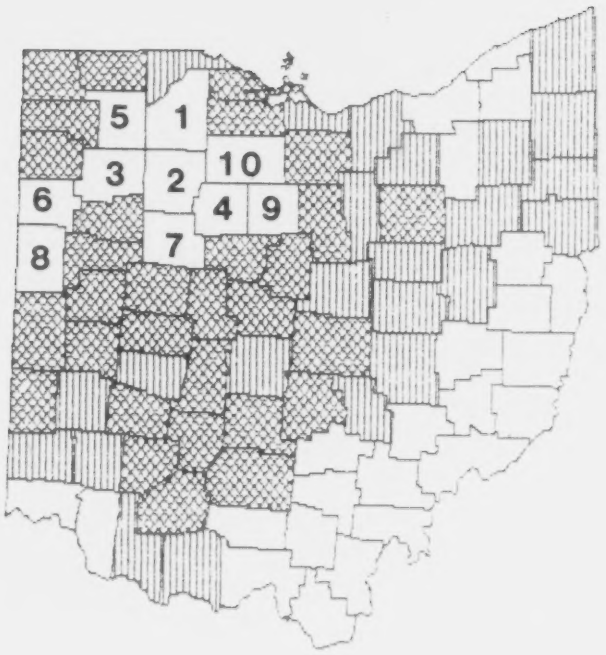
CORN
(THOUSAND BUSHELS)

SYMBOL	THOUSAND BUSHELS TOP TEN COUNTIES
1-10	10,500 AND OVER
	7,500 - 10,499
	2,500 - 7,499
	UNDER 2,500

SOYBEANS
(THOUSAND BUSHELS)

SYMBOL	THOUSAND BUSHELS TOP TEN COUNTIES
1-10	3,950 AND OVER
	2,000 - 3,949
	250 - 1,999
	UNDER 250

WHEAT
(THOUSAND BUSHELS)



SYMBOL	THOUSAND BUSHELS TOP TEN COUNTIES
1-10	1,350 - AND OVER
	500 - 1,349
	100 - 499
	UNDER 100

HAY
(THOUSAND TONS)

SYMBOL	THOUSAND TONS TOP TEN COUNTIES
	92 AND OVER
	50 - 91
	25 - 49
	UNDER 25

SUGAR BEETS: ACREAGE, YIELD AND PRODUCTION, OHIO, 1985 and 1986

County	Harvested acres		Yield		Production	
	1985	1986	1985	1986	1985	1986
	Acres		Tons per acre		Tons	
Erie	360	480	25.3	25.6	9,100	12,300
Hancock	830	680	19.4	17.8	16,100	12,100
Huron	1/	260	1/	27.7	1/	7,200
Lucas	1/	250	1/	20.8	1/	5,200
Ottawa	790	1,200	20.5	22.8	16,200	27,300
Putnam	1,350	1,560	18.4	19.5	24,900	30,400
Sandusky	5,750	6,700	20.7	19.9	119,100	133,300
Seneca	2,260	2,800	21.3	22.9	48,200	64,200
Wood	890	1,010	15.6	16.4	13,900	16,600
All other 1/	470	60	22.3	6.7	10,500	400
State	12,700	15,000	20.3	20.6	258,000	309,000

1/ Hardin and Henry in 1986.

BURLEY TOBACCO: ACREAGE, YIELD AND PRODUCTION, OHIO, 1985-86

County	Harvested acres		Yield		Production	
	1985	1986	1985	1986	1985	1986
	Acres		Lbs. per acre		Lbs.	
Adams	1,750	1,870	2,260	1,830	3,955,000	3,420,000
Brown	2,180	2,270	2,280	1,960	4,970,000	4,450,000
Clermont	880	700	1,900	1,815	1,672,000	1,270,000
Gallia	800	820	2,060	1,790	1,648,000	1,470,000
Hamilton	30	-	2,000	-	60,000	-
Highland	500	500	2,180	1,900	1,090,000	950,000
Jackson	60	50	2,000	2,100	120,000	105,000
Lawrence	400	380	1,800	1,450	720,000	550,000
Pike	140	120	1,950	1,500	273,000	180,000
Ross	30	40	2,000	2,000	60,000	80,000
Scioto	250	280	2,200	1,750	550,000	490,000
Other 1/	80	70	1,840	1,415	147,000	99,000
State	7,100	7,100	2,150	1,840	15,265,000	13,064,000

1/Includes Athens, Clinton, Fayette, Greene, Meigs, Monroe, Montgomery, Noble, Vinton and Warren Counties in 1985 and Athens, Greene, Hamilton, Meigs, Monroe, Montgomery, Noble, Vinton and Warren in 1986.

FALL POTATOES: PRODUCTION AND TOTAL STOCKS HELD BY GROWERS AND DEALERS, OHIO, 1982-86

Crop year	Production	Stocks December 1	Stocks following year			
			January 1	February 1	March 1	April 1
	Thousand hundredweight					
1982	2,205	800	400	200	70	25
1983	1,886	700	430	270	100	40
1984	2,418	950	650	450	250	100
1985	2,465	800	500	300	130	40
1986	2,377	680	480	250	-	-

OHIO: PROCESSING TOMATOES, HARVESTED ACREAGE, YIELD AND PRODUCTION, BY COUNTY AND DISTRICT, 1985 AND 1986

County & District	Harvested acreage 1985	Harvested acreage 1986	Yield 1985	Yield 1986	Production 1985	Production 1986
			Tons		Tons	
Darke	1,080	610	20.7	18.5	22,400	11,300
Defiance	230	250	25.5	22.0	5,870	5,500
Fulton	1,070	1,030	26.9	25.9	28,800	26,700
Hancock	590	-	24.2	-	14,250	-
Henry	1,200	1,110	26.4	23.7	31,700	26,300
Lucas	350	200	23.1	27.0	8,100	5,400
Ottawa	990	720	26.9	32.6	26,680	23,500
Putnam	2,710	2,570	24.7	24.3	67,000	62,500
Sandusky	2,660	2,770	27.0	29.4	71,700	66,800
Seneca	950	900	27.5	32.3	26,160	29,100
Williams	780	640	23.2	25.3	18,100	16,200
Wood	1,840	2,120	26.1	24.1	47,950	51,000
Other	1,450 1/	2,380 2/	25.0	25.4	36,260	60,500
Total	**15,900**	**14,800**	**25.5**	**26.0**	**404,970**	**384,800**

1/Includes Erie, Hardin, Henry, Huron, Lucas, Van Wert, and Wyandot. 2/ Adams, Allen, Clinton, Erie, Fayette, Greene, Hancock, Huron, Madison, Mercer, Miami and Pickaway.

PROCESSING TOMATOES: METHOD OF PLANTING AS PERCENT OF HARVESTED ACREAGE, OHIO, 1985-1986

Methods of planting	Harvested acreage 1985	Harvested acreage 1986	% of total 1985	% of total 1986
Seeded	1,750	1,800	11	12
Transplanted	14,150	13,000	89	88
Total	15,900	14,800	100	100

PROCESSING TOMATOES: METHOD OF HARVESTING AS PERCENT OF HARVESTED ACREAGE, OHIO, 1985-1986

Methods of harvesting	Harvested acreage 1985	Harvested acreage 1986	% of total 1985	% of total 1986
Mechanical	12,100	12,400	76	84
Handpicked	3,800	2,400	24	16
Total	15,900	14,800	100	100

OFF-FARM COMMERCIAL GRAIN STORAGE CAPACITY, JANUARY 1, 1986 & December 1, 1986

County	Capacity 1/ 1/1/86	Capacity 1/ 12/1/86	County	Capacity 1/ 1/1/86	Capacity 1/ 12/1/86	County	Capacity 1/ 1/1/86	Capacity 1/ 12/1/86
	1,000 bushels			1,000 bushels			1,000 bushels	
Adams	851	851	Hancock	17,545	17,657	Paulding	7,094	7,181
Allen	6,514	7,573	Hardin	5,172	5,748	Perry	4	4
Ashland	1,916	1,830	Harrison	3	3	Pickaway	3,979	4,217
Ashtabula	378	378	Henry	8,700	8,745	Pike	40	0
Athens	7	7	Highland	2,114	2,114	Portage	847	1,147
Auglaize	3,283	3,447	Hocking	958	958	Preble	3,311	3,570
Belmont	16	16	Holmes	266	266	Putnam	2,754	3,014
Brown	198	198	Huron	9,279	8,797	Richland	2,640	2,510
Butler	1,635	4,129	Jackson	60	60	Ross	2,063	2,998
Carroll	9	39	Jefferson	2	2	Sandusky	3,591	4,259
Champaign	6,488	5,998	Knox	1,464	1,501	Scioto	160	150
Clark	3,432	3,372	Lake	0	0	Seneca	5,452	5,547
Clermont	0	0	Lawrence	500	500	Shelby	8,097	8,446
Clinton	4,334	4,335	Licking	2,319	2,309	Stark	352	358
Columbiana	440	589	Logan	2,799	2,647	Summit	0	0
Coshocton	2,707	2,705	Lorain	1,932	1,940	Trumbull	252	354
Crawford	3,644	4,128	Lucas	53,164	53,172	Tuscarawas	472	472
Cuyahoga	506	507	Madison	3,945	4,358	Union	1,060	1,060
Darke	4,886	4,872	Mahoning	1,364	1,404	Van Wert	6,621	6,396
Defiance	3,154	3,164	Marion	9,566	9,552	Vinton	0	0
Delaware	1,032	1,032	Medina	272	375	Warren	711	559
Erie	3,210	3,526	Meigs	17	17	Washington	2	33
Fairfield	988	907	Mercer	2,577	2,689	Wayne	2,611	2,636
Fayette	2,972	3,498	Miami	6,173	6,288	Williams	4,024	4,011
Franklin	9,665	9,865	Monroe	3	3	Wood	12,342	12,645
Fulton	5,827	9,042	Montgomery	3,967	4,728	Wyandot	8,483	10,725
Gallia	0	60	Morgan	10	10			
Geauga	142	142	Morrow	2,746	3,833	OHIO	300,168	318,400
Greene	2,601	2,351	Muskingum	1,291	3,291			
Guernsey	8	8	Noble	2	2			
Hamilton	11,993	12,409	Ottawa	2,160	2,161	U.S. Total	8,287,140	9,126,930

1/ 1/1/86 County Data is Warehousemen and Dealer Licensees as of Jan. 17, 1986 from the Ohio Dept. of Agriculture. 12/1/86 County Data Estimate by Ohio Agricultural Statistics Service as of December 1, 1986.

GRAIN STOCKS: TOTAL STOCKS AND PERCENT OF PRODUCTION, BY QUARTERS, OHIO, 1985-1987

Crop	Year	December 1/		March 1 2/		June 1		September 1 3/	
		All positions	% of 4/ prod.	All positions	% of 4/ prod.	All positions	% of 4/ prod.	All positions	% of 4/ prod.
		Thousand bushels							
CORN	1985	342,591	74.4	183,998	40.0	121,113	26.3	32,804	7.1
	1986	401,361	78.4	284,168	55.5	234,466	45.8	156,850	30.6
	1987	492,982	103.5						
SOYBEANS	1985	102,767	74.7	63,271	46.0	39,471	28.7	17,979	13.1
	1986	113,783	70.8	72,253	45.0	51,081	31.8	22,642	14.1
	1987	106,282	70.6						
WHEAT	1985	29,317	60.6	17,068	35.3	11,354	23.5	52,884	89.8
	1986	33,939	57.6	18,828	32.0	13,895	23.6	43,235	89.5
	1987	29,008	60.1						
OATS 5/	1985	10,884	78.5	6,750	48.7	4,354	31.4	23,557	89.4
	1986	16,652	63.2			8,037	30.5		

1/ December previous year, 1986 and 1985 reference date is January. 2/ Reference date for 1986 and 1985 is April 1 3/ Reference date for 1986 and 1985 for wheat and corn is October 1. 4/ Percent of production refers to previous year's production, except October 1 where percent for wheat and oats refers to current year. 5/ Beginning 1986 stocks estimated only on June 1st.

STOCKS OF GRAIN: BY POSITION AND QUARTER, OHIO, 1985-87

Crop	Year	December 1 1/		March 1 2/		June 1		September 1 3/	
		On farms	Off farms	On farms	Off farms	On farms	Off farms	On farms	Off farms
		Thousand bushels							
CORN	1985	243,906	98,685	110,448	73,550	78,234	42,879	18,408	14,396
	1986	266,141	135,220	168,897	115,271	138,189	96,277	61,500	95,350
	1987	300,000	192,982						
SOYBEANS	1985	53,666	49,101	27,521	35,750	19,265	20,206	8,256	9,723
	1986	62,636	51,147	33,727	38,526	24,091	26,990	6,000	16,642
	1987	57,000	49,282						
WHEAT	1985	3,146	26,171	968	16,100	726	10,628	7,068	45,816
	1986	2,651	31,288	1,767	17,061	1,178	12,717	7,100	36,135
	1987	2,100	26,908						
OATS 4/	1985	6,930	3,954	3,465	3,285	2,356	1,998	15,020	8,537
	1986	10,013	6,639			4,743	3,294		

1/ December previous year, 1986 and 1985 reference date is January. 2/ Reference date for 1986 and 1985 is April 1. 3/ Reference date for 1986 and 1985 for wheat and corn is October 1. 4/ Beginning 1986 stocks estimated only on June 1st.

ALL HAY ON FARMS 1/: OHIO, 1984-87

Year	Jan. 1	Percent of prod.	May 1	Percent of prod.
	Thou. ton	Pct.	Thou. ton	Pct.
1984	2,076	64	422	13
1985	2,429	64	569	15
1986	2,944	64	920	20
1987	2,929	68	560	13

1/Pertains to previous year's production.

CORN, SOYBEANS, WHEAT, OATS, ALL HAY: HARVESTED ACRES, YIELD AND PRODUCTION, OHIO, 1980-86

Year	Corn for grain			Soybeans			Wheat		
	Harvested acres	Yield	Production	Harvested acres	Yield	Production	Harvested acres	Yield	Production
	Thou.	Bu./acre	Thou. bu.	Thou.	Bu./acre	Thou. bu.	Thou.	Bu./acre	Thous. bu
1980	3,900	113.0	440,700	3,760	36.0	135,360	1,370	49.0	67,130
1981	3,750	96.0	360,000	3,450	28.5	98,325	1,600	44.0	70,400
1982	4,000	114.0	456,000	3,700	36.0	133,200	1,200	43.0	51,600
1983	2,800	80.0	224,000	3,280	32.0	104,960	1,200	49.0	58,800
1984	3,900	118.0	460,200	3,770	36.5	137,605	1,100	44.0	48,400
1985	4,030	127.0	511,810	3,870	41.5	160,605	950	62.0	58,900
1986	**3,720**	**128.0**	**476,160**	**3,670**	**41.0**	**150,470**	**1,050**	**46.0**	**48,300**

Year	Oats			All Hay (Tons)			5 Major Crops
	Harvested acres	Yield	Production	Harvested acres	Yield	Production	Harvested * acres
	Thou.	Bu./acre	Thou. bu.	Thou.	Bu./acre	Thou. bu.	Thousands
1980	290	67.0	19,430	1,430	2.51	3,588	11,040
1981	270	63.0	17,010	1,420	2.53	3,599	10,890
1982	340	69.0	23,460	1,340	2.64	3,543	10,910
1983	240	64.0	15,360	1,260	2.57	3,244	9,080
1984	220	63.0	13,860	1,350	2.81	3,795	10,620
1985	310	85.0	26,350	1,450	3.17	4,600	10,860
1986	**160**	**76.0**	**12,160**	**1,460**	**2.95**	**4,307**	**10,370**

*Corn and soybeans planted plus hay, wheat and oats harvested.

FARM REAL ESTATE: VALUE AND CASH RENTS, OHIO, 1980-87

Year	Average value per acre 1/			Cash rent per acre 2/		
	Index 3/	Actual	% Prev. Year	Cropland	Pasture	Whole Farms
		Dollars			Dollars	
1980	156	1,730	117	81.80	27.80	72.00
1981	160	1,831	106	87.70	27.30	78.60
1982	137	1,629	89	88.40	28.10	80.80
1983	121	1,504	92	89.10	25.40	77.80
1984	116	1,444	96	79.96	22.50	71.78
1985	90	1,126	78	72.64	25.87	72.18
1986	81	1,013	90	70.32	24.87	65.88
1987	**75**	**942**	**93**	**63.22**	**25.14**	**58.44**

1/Averages for this historic series use census of agriculture data for benchmarks and in intercensal years are based on sample surveys of farmers, farm real estate brokers, land appraisers, local banks, and county officials. 2/Rents are based on a March 1 survey of farmers until 1981. For 1982-1985 the survey was conducted April 1. In 1986 the survey was conducted February 1. 3/1977=100 (base year).

CASH RENTS, BY CROP REPORTING DISTRICT, OHIO, 1986-87

Dist.	1986 Farmland Rent Estimate	1987 rent per acre farmland			1986 Cropland Rent Estimate	1987 rent per acre cropland			1986 Pasture Rent Estimate	1987 rent per acre pasture		
		Estimate	Range	Number of Reports		Estimate	Range	Number of Reports		Estimate	Range	Number of Reports
		Dollars		Number		Dollars		Number		Dollars		Number
1	85	75	25-140	114	85	80	40-130	139	30	30	10-60	43
2	75	65	15-100	75	75	70	20-145	86	30	30	10-60	45
3	40	35	5-100	66	40	35	5-85	68	20	20	5-60	57
4	85	75	35-125	96	85	75	35-125	105	30	30	10-60	57
5	70	55	20-98	108	70	60	15-100	127	25	30	5-60	82
6	40	40	5-100	29	55	45	5-100	30	25	25	5-50	28
7	80	70	20-120	41	85	75	20-110	43	30	30	10-50	32
8	45	45	10-100	47	50	50	15-120	51	25	25	5-60	40
9	40	30	5-75	36	50	50	10-100	42	20	20	5-60	35

LAST OCCURANCE OF CRITICAL FAHRENHEIT TEMPERATURES IN SPRING 1986

STATION	20		24		28		30		32		36		40		43	
	MO.	DAY	MO.	DAY	MO.	DAY	MO.	DAY	MO.	DAY	MO.	DAY	MO.	DAY	MO.	DAY
HOYTVILLE	3	22	4	24	5	5	5	5	5	5	5	5	5	5	6	4
FREMONT	3	22	3	22	4	23	4	23	4	23	5	4	5	4	6	3
WILLARD	3	24	3	24	5	4	5	8	5	8	5	8	6	3	6	25
CELINA	3	22	3	23	4	24	4	24	4	24	5	4	5	5	6	3
S CHARLESTON	3	23	4	24	5	4	5	4	5	5	5	5	5	5	5	5
RIPLEY	3	22	4	23	4	23	4	23	4	24	5	4	5	5	5	5
WOOSTER	3	23	4	24	5	5	5	5	5	5	6	4	6	4	6	26
CANFIELD	3	23	4	25	5	4	5	4	5	5	6	26	6	26	6	27
COSHOCTON	3	22	3	22	4	23	4	23	5	3	5	4	5	4	6	3
OSU COLUMBUS	3	22	4	23	4	23	4	24	5	4	5	4	5	4	5	4
CALDWELL	3	23	3	23	4	25	4	25	5	5	5	5	5	5	6	19
JACKSON	3	23	5	5	5	5	5	5	5	5	5	6	5	6	6	27
PANDORA	3	22	3	23	4	23	4	23	4	23	5	4	5	4	6	3
WILMINGTON	3	22	3	23	4	23	4	24	5	3	5	6	5	6	5	6
MARION	3	22	3	23	4	23	4	23	4	23	5	4	6	3	6	3
CIRCLEVILLE	3	22	3	23	4	23	5	3	5	4	5	5	5	8	5	8
OXFORD	3	23	4	24	4	24	4	24	5	5	5	5	5	13	5	23
DELAWARE	3	23	4	24	4	25	5	5	6	4	6	4	6	4	6	19
AKRON CANTON	3	22	4	23	4	23	5	3	5	3	5	4	6	3	6	18
CINCINNATI	3	22	4	23	4	23	4	23	5	3	5	4	5	4	5	22
CLEVELAND	3	22	3	22	5	3	5	3	5	4	5	4	5	4	6	3
COLUMBUS	3	22	4	23	4	23	4	24	5	4	5	4	5	4	5	4
DAYTON	3	21	3	22	4	23	4	23	4	23	5	4	5	4	5	4
FINDLAY	3	21	3	22	4	23	4	23	4	23	5	4	6	4	6	4
MANSFIELD	3	22	4	23	4	23	4	24	5	3	5	4	6	3	6	3
TOLEDO	3	21	4	23	4	23	5	4	5	4	5	4	6	3	6	4
YOUNGSTOWN	3	22	3	22	5	3	5	3	5	4	6	3	6	18	6	25
ZANESVILLE	3	22	4	23	4	24	5	4	5	4	5	4	5	4	6	18
HUNTINGTON	3	22	3	22	4	23	5	4	5	4	5	4	5	4	5	4
PARKERSBURG	3	22	3	22	4	24	4	24	5	4	5	4	5	4	5	11

FIRST OCCURANCE OF CRITICAL FAHRENHEIT TEMPERATURES IN FALL 1986

STATION	20		24		28		30		32		36		40		43	
	MO.	DAY	MO.	DAY	MO.	DAY	MO.	DAY	MO.	DAY	MO.	DAY	MO.	DAY	MO.	DAY
HOYTVILLE	11	14	11	11	11	3	10	20	10	17	9	9	8	30	8	29
FREMONT	11	13	11	10	11	3	10	19	10	19	10	7	8	29	8	29
WILLARD	11	13	11	3	11	1	11	1	10	7	8	29	8	29	8	13
CELINA	11	14	11	11	11	4	11	4	10	20	10	8	8	30	8	29
S CHARLESTON	11	14	11	11	11	9	11	4	10	20	10	8	8	29	8	29
RIPLEY	11	13	11	13	11	13	11	10	10	20	10	7	8	29	8	29
WOOSTER	11	14	11	4	10	20	10	20	10	8	9	9	8	30	8	13
CANFIELD	11	14	10	20	10	11	9	18	9	9	8	30	8	26	7	5
COSHOCTON	11	13	11	13	11	10	11	10	11	10	10	7	8	29	8	29
OSU COLUMBUS	11	13	11	10	11	3	10	20	10	16	10	7	8	31	8	12
CALDWELL	11	14	11	14	10	20	10	20	10	20	10	8	8	30	8	29
JACKSON	11	14	11	14	10	21	10	21	10	8	9	10	9	10	8	29
PANDORA	11	13	11	13	11	13	10	19	10	19	10	10	9	8	8	28
WILMINGTON	11	13	11	13	11	10	10	20	10	19	10	7	8	29	8	29
MARION	11	13	11	10	11	3	10	19	10	19	8	29	8	29	8	29
CIRCLEVILLE	11	13	11	13	10	21	10	19	10	16	10	7	8	29	8	29
OXFORD	11	14	11	11	11	11	10	16	10	16	10	8	8	30	8	29
DELAWARE	11	14	11	11	11	4	10	20	10	19	10	8	8	30	8	29
AKRON CANTON	11	13	11	13	11	3	11	3	10	10	10	7	10	6	8	29
CINCINNATI	11	3	11	13	11	12	11	12	10	20	10	15	10	7	8	29
CLEVELAND	11	14	11	13	11	3	10	19	10	19	10	16	10	7	9	17
COLUMBUS	11	13	11	13	11	10	11	3	11	3	10	7	8	29	8	29
DAYTON	11	13	11	10	11	10	11	3	10	19	10	15	10	7	8	29
FINDLAY	11	13	11	10	11	3	11	3	11	3	10	7	8	29	8	29
MANSFIELD	11	13	11	10	11	3	11	3	10	19	10	7	9	17	8	29
TOLEDO	11	10	11	3	11	3	10	19	10	7	10	7	8	29	8	28
YOUNGSTOWN	11	13	11	13	10	10	10	10	9	17	9	17	8	29	8	12
ZANESVILLE	11	13	11	13	11	3	10	16	10	16	10	7	8	29	8	29
HUNTINGTON	11	14	11	14	11	14	11	13	10	19	10	15	10	7	8	29
PARKERSBURG	11	14	11	14	11	13	11	10	10	19	10	16	8	29	8	29

MONTHLY PRECIPITATION AND DEVIATIONS
FOR 1986

MONTH	MON	DEV	YTD	ACCUM DEV	MON	DEV	YTD	ACCUM DEV	MON	DEV	YTD	ACCUM DEV
	HOYTVILLE				FINDLAY				FREMONT			
APR	3.41	.47	3.41	.47	2.78	-.16	2.78	-.16	3.38	.44	3.38	.44
MAY	2.04	-1.00	5.45	-.53	2.71	-.33	5.49	-.49	4.59	1.55	7.97	1.99
JUN	3.29	.35	8.74	-.18	5.22	2.28	10.71	1.79	3.15	.21	11.12	2.20
JUL	5.68	2.64	14.42	2.46	4.56	1.52	15.27	3.31	5.39	2.35	16.51	4.55
AUG	3.78	1.00	18.20	3.46	4.03	.99	19.30	4.30	3.01	-.03	19.52	4.52
SEP	2.93	.97	21.13	4.43	5.16	3.17	24.46	7.47	2.49	.43	22.01	4.95
OCT	3.49	1.46	24.62	5.89	2.59	1.05	27.05	8.52	3.53	2.03	25.54	6.98
NOV	2.36	.40	26.98	6.29	2.30	.34	29.35	8.86	2.53	.57	28.07	7.55
	PANDORA				TOLEDO				WILLARD			
APR	2.89	-.05	2.89	-.05	2.64	.06	2.64	.06	3.49	.55	3.49	.55
MAY	3.24	.20	6.13	.15	2.77	.45	5.41	.51	3.31	.27	6.80	.82
JUN	3.80	.86	9.93	1.01	4.88	1.94	10.29	2.45	3.20	.26	10.00	1.08
JUL	6.25	3.21	16.18	4.22	3.76	.72	14.05	3.17	5.13	2.09	15.13	3.17
AUG	3.55	1.23	19.73	5.45	6.08	3.14	20.13	6.31	2.26	-.78	17.39	2.39
SEP	5.02	3.06	24.75	8.51	5.11	3.15	25.24	9.46	6.67	4.02	24.06	6.41
OCT	2.75	.72	27.50	9.23	4.74	3.27	29.98	12.73	2.96	.93	27.02	7.35
NOV	2.28	.32	29.78	9.55	2.08	.12	32.06	12.84	3.35	1.39	30.37	8.74
	AKRON CANTON				CANFIELD				CLEVELAND			
APR	1.83	-1.11	1.83	-1.11	.91	-2.03	.91	-2.03	.83	.89	.3	3.83
MAY	2.11	-.93	3.94	-2.04	3.33	.29	4.24	-1.74	4.39	1.35	8.22	2.24
JUN	2.98	.04	6.92	-2.00	2.80	-.21	7.04	-1.95	2.84	-.10	11.06	2.14
JUL	3.86	.59	10.78	-1.41	3.73	-.16	10.77	-2.11	3.11	.07	14.17	2.21
AUG	1.24	-1.80	12.02	-3.21	2.62	-.42	13.39	-2.53	3.58	.54	17.75	2.75
SEP	3.14	.79	15.16	-2.42	3.99	1.34	17.38	-1.18	5.48	3.16	23.23	5.91
OCT	3.68	1.65	18.84	-.77	5.58	3.55	22.96	2.37	3.87	1.84	27.10	7.75
NOV	3.43	1.47	22.27	.70	3.17	1.21	26.13	3.58	3.01	1.05	30.11	8.80
	WOOSTER				YOUNGSTOWN				CELINA			
APR	2.06	-.88	2.06	-.88	2.03	-.91	2.03	-.91	3.26	.32	3.26	.32
MAY	3.34	.30	5.40	-.58	3.50	.46	5.53	-.45	4.72	1.68	7.98	2.00
JUN	5.31	2.37	10.71	1.79	10.58	7.64	16.11	7.19	4.44	1.50	12.42	3.50
JUL	4.12	.30	14.83	2.08	8.37	4.87	24.48	12.06	6.82	3.78	19.24	7.28
AUG	1.27	1.80	16.10	.28	2.88	-.16	27.36	11.90	2.78	.69	22.02	7.97
SEP	3.34	.73	19.44	1.01	4.94	2.29	32.30	14.20	4.04	2.05	26.06	10.01
OCT	3.88	1.85	23.32	2.86	3.17	1.14	35.47	15.34	3.45	1.42	29.51	11.44
NOV	2.80	.84	26.12	3.70	2.91	.95	38.38	16.29	2.70	.74	32.21	12.18
	COLUMBUS				OSU COLUMBUS				COSHOCTON			
APR	1.30	-1.64	1.30	-1.64	.91	-2.03	.91	-2.03	1.06	-1.88	1.06	1.88
MAY	2.47	-.57	3.77	-2.21	2.22	-.82	3.13	-2.85	1.01	-2.03	2.07	-3.91
JUN	4.99	1.43	8.76	-.78	1.87	-1.69	5.00	-4.54	6.69	3.39	8.76	-.52
JUL	4.13	.47	12.89	-.31	3.76	.10	8.76	-4.44	4.03	-.02	12.79	-.54
AUG	1.61	-1.43	14.50	-1.74	1.64	-1.40	10.40	-5.84	1.49	-1.75	14.28	-2.29
SEP	3.43	1.21	17.93	-.53	3.29	1.07	13.69	-4.77	4.95	2.53	19.23	.24
OCT	4.19	2.69	22.12	2.15	4.76	3.26	18.45	-1.52	3.67	1.64	22.90	1.89
NOV	2.95	.99	25.07	3.14	3.92	1.96	22.37	.44	2.15	.19	25.05	2.08
	MANSFIELD				MARION				DELAWARE			
APR	3.37	.43	3.37	.43	2.82	-.12	2.82	-.12	2.04	-.90	2.04	-.90
MAY	3.51	.47	6.88	.90	4.63	1.59	7.45	1.47	2.07	-.97	4.11	-1.87
JUN	6.47	3.53	13.35	4.43	2.66	-.28	10.11	1.19	4.33	1.39	8.44	-.48
JUL	8.06	5.02	21.41	9.45	4.51	1.47	14.62	2.66	4.57	1.20	13.01	.72
AUG	3.28	.24	24.69	9.69	2.77	-.27	17.39	2.39	1.68	-1.36	14.69	-.64
SEP	7.45	4.97	32.14	14.66	5.53	3.08	22.92	5.47	7.55	5.33	22.24	4.69
OCT	4.66	2.99	36.80	17.65	5.01	2.98	27.93	8.45	3.67	1.64	25.91	6.33
NOV	3.94	1.98	40.74	19.63	2.42	.46	30.35	8.91	3.16	1.20	29.07	7.53
	CIRCLEVILLE				CINCINNATI				DAYTON			
APR	2.05	-.89	2.05	-.89	1.56	-1.38	1.56	-1.38	2.43	-.51	2.43	-.51
MAY	2.17	-1.13	4.22	-2.02	3.82	.78	5.38	-.60	2.54	-.50	4.97	-1.01
JUN	2.82	-.12	7.04	-2.14	1.28	-2.48	6.66	-3.08	6.25	3.31	11.22	2.30
JUL	2.96	-.90	10.00	-3.04	3.32	-.50	9.98	-3.58	5.12	2.08	16.34	4.38
AUG	2.46	-.68	12.46	-3.72	3.78	1.26	13.76	-2.32	1.97	-.74	18.31	3.64
SEP	4.33	1.70	16.84	-2.02	2.12	.16	15.88	-2.16	2.65	.69	20.96	4.33
OCT	2.19	.16	19.03	-1.85	3.11	1.08	18.99	-1.08	6.76	5.00	27.72	9.32
NOV	3.84	1.88	22.87	.03	3.81	1.10	22.80	.02	3.04	1.08	30.76	10.40
	RIPLEY				S CHARLESTON				WILMINGTON			
APR	2.17	-.90	2.17	-.90	2.21	-.73	2.21	-.73	2.50	-1.42	2.50	1.42
MAY	5.11	2.07	7.28	1.17	1.80	-1.73	4.01	-2.46	2.24	-1.81	4.74	-3.23
JUN	3.80	.86	11.08	2.03	5.06	2.09	9.07	-.37	2.89	-1.03	7.63	-4.27
JUL	4.65	.66	15.73	2.69	4.54	.62	13.61	.24	5.20	1.47	12.83	-2.79
AUG	2.80	-.89	18.53	1.80	2.07	-.97	15.68	-.73	2.05	-.99	14.88	-3.78
SEP	4.40	1.62	22.93	3.42	2.90	.51	18.58	-.21	4.12	1.37	19.00	-2.41
OCT	2.58	.55	25.51	3.97	4.58	2.55	23.16	2.34	2.47	.44	21.47	-1.96
NOV	5.54	2.96	31.05	6.93	3.01	1.05	26.17	3.39	3.48	.64	24.95	-1.32
	OXFORD				CALDWELL				JACKSON			
APR	1.74	-1.20	1.74	-1.20	2.17	-.77	2.17	-.77	1.14	-2.10	1.14	-2.10
MAY	3.83	.79	5.57	-.41	2.01	-1.09	4.18	-1.87	5.04	2.00	6.18	-.09
JUN	3.08	-.02	8.65	-.43	4.70	.78	8.88	-1.09	2.47	-.57	8.65	-.66
JUL	4.28	.39	12.93	-.04	3.96	-.09	12.84	-1.18	4.15	.10	12.80	-.57
AUG	1.12	-1.92	14.05	-1.96	1.24	-2.06	14.08	-3.24	2.49	-.97	15.29	-1.54
SEP	4.33	1.68	18.38	-.28	.00	-2.45	14.08	-5.69	2.76	-.08	18.05	-1.62
OCT	3.18	1.15	21.56	.87	1.58	-.45	15.66	-6.14	3.95	1.92	22.00	.30
NOV	.62	-1.34	22.18	-.47	4.28	2.32	19.94	-3.82	4.47	2.51	26.47	2.81
	ZANESVILLE				HUNTINGTON				PARKERSBURG			
APR	1.52	-1.42	1.52	-1.42	.95	-1.99	.95	-1.99	1.89	-1.05	1.89	-1.05
MAY	1.55	-1.49	3.07	-2.91	3.51	-.44	4.46	-2.44	1.79	-1.25	3.68	-2.30
JUN	3.96	.23	7.03	-2.68	3.09	-.83	7.55	-3.27	5.61	2.67	9.29	.37
JUL	4.89	.84	11.92	-1.84	5.77	1.72	13.32	-1.55	4.09	.56	13.38	.93
AUG	1.85	-1.45	13.77	-3.29	3.18	-.35	16.50	-1.90	4.08	.88	17.46	1.81
SEP	3.84	1.62	17.61	-1.67	3.68	1.03	20.18	-.87	3.99	1.64	21.45	3.44
OCT	3.89	1.86	21.50	.19	1.88	-.15	22.06	-1.01	3.14	1.11	24.59	4.56
NOV	3.01	1.05	24.51	1.24	6.66	4.70	28.72	3.69	4.94	2.98	29.53	7.54

1/ DEVIATIONS FROM NORMAL RAINFALL ARE DERIVED USING THE AVERAGE RAINFALL OVER A 30-YEAR PERIOD. THESE NORMALS ARE UPDATED EACH DECADE, AND WEATHER STATIONS WITHOUT DEVIATIONS HAD LESS THAN 30 YEARS OF DATA DURING THE PERIOD 1941-70.

MONTHLY GROWING DEGREE DAYS, (BASE 50) SEASON ACCUMULATION, DEVIATIONS FROM NORMAL, 1/1986

MONTH	MONTH	DEV	ACCUM	ACCUM DEV	MONTH	DEV	ACCUM	ACCUM DEV	MONTH	DEV	ACCUM	ACCUM DEV
	HOYTVILLE				FINDLAY				FREMONT			
APR	222	50	222	50	247	110	247	110	214	100	214	100
MAY	374	13	596	63	421	91	668	201	381	64	595	164
JUN	555	-44	1151	19	599	26	1267	227	559	-24	1154	140
JUL	706	-23	1857	-4	747	40	2014	267	701	-34	1855	106
AUG	583	-85	2440	-89	606	-44	2620	223	550	-136	2405	-30
SEP	511	55	2951	-34	553	128	3173	351	509	50	2914	20
OCT	254	16	3205	-18	261	59	3434	410	239	37	3153	57
NOV	39	11	3244	-7	48	33	3482	443	42	22	3195	79
	PANDORA				TOLEDO				WILLARD			
APR	249	95	249	95	204	68	204	68	265	108	265	108
MAY	412	68	661	163	396	75	600	143	402	73	667	181
JUN	607	26	1268	189	568	35	1168	178	557	21	1224	202
JUL	735	43	2003	232	725	52	1893	230	668	10	1892	212
AUG	580	-52	2583	180	578	-35	2471	195	556	-57	2448	155
SEP	533	109	3116	289	520	123	2991	318	520	108	2968	263
OCT	249	24	3365	313	239	37	3230	355	265	49	3233	312
NOV	45	24	3410	337	46	32	3276	387	29	6	3262	318
	AKRON CANTON				CANFIELD				CLEVELAND			
APR	246	107	246	107	32	67	232	67	198	79	198	79
MAY	405	91	651	198	373	40	605	107	389	94	587	173
JUN	571	43	1222	241	518	16	1123	123	575	63	1162	226
JUL	705	37	1927	278	619	-5	1742	118	714	49	1876	275
AUG	618	-8	2545	270	555	-36	2297	82	619	-5	2495	270
SEP	536	130	3081	400	471	67	2768	149	546	131	3041	401
OCT	243	49	3324	449	246	26	3014	175	256	61	3297	462
NOV	47	30	3371	479	48	23	3062	198	50	31	3347	493
	WOOSTER				YOUNGSTOWN				CELINA			
APR	251	114	251	114	229	110	229	110	271	85	271	85
MAY	406	102	657	216	391	102	620	212	458	84	729	169
JUN	545	46	1202	262	535	52	1155	264	650	53	1379	222
JUL	677	46	1879	308	651	37	1806	301	781	56	2160	278
AUG	595	8	2474	316	575	-6	2381	295	632	-38	2792	240
SEP	511	128	2985	444	494	124	2875	419	582	129	3374	369
OCT	261	67	3246	511	241	65	3116	484	300	58	3674	427
NOV	45	29	3291	540	46	36	3162	520	61	31	3735	458
	COLUMBUS				OSU COLUMBUS				COSHOCTON			
APR	288	103	288	103	280	95	280	95	260	58	260	58
MAY	480	109	768	212	465	94	745	189	426	52	686	110
JUN	648	49	1416	261	638	39	1383	228	610	45	1296	155
JUL	774	40	2190	301	742	8	2125	236	736	55	2032	210
AUG	671	-15	2861	286	687	1	2812	237	649	2	2681	212
SEP	600	139	3461	425	596	135	3408	372	537	97	3218	309
OCT	306	74	3767	499	304	72	3712	444	277	30	3495	339
NOV	60	30	3827	529	67	37	3779	481	63	21	3558	360
	MANSFIELD				MARION				DELAWARE			
APR	249	116	249	116	263	119	263	119	271	93	271	93
MAY	403	95	652	211	415	94	678	213	433	83	704	176
JUN	578	45	1230	256	600	61	1278	274	601	40	1305	216
JUL	704	30	1934	286	708	33	1986	307	725	29	2030	245
AUG	583	-49	2517	237	592	-20	2578	287	623	-18	2653	227
SEP	534	120	3051	357	541	133	3119	420	541	112	3194	339
OCT	247	49	3298	406	253	41	3372	461	289	57	3483	396
NOV	43	28	3341	434	46	25	3418	486	52	20	3535	416
	CIRCLEVILLE				CINCINNATI				DAYTON			
APR	308	71	308	71	303	85	303	85	285	86	285	86
MAY	495	70	803	141	504	95	807	180	473	38	758	124
JUN	646	6	1449	147	681	43	1488	223	660	-23	1418	101
JUL	750	-16	2199	131	817	39	2305	262	778	-28	2196	73
AUG	635	-86	2834	45	685	-52	2990	210	641	-127	2837	-54
SEP	587	76	3421	121	625	114	3615	324	587	52	3424	-2
OCT	328	42	3749	163	312	54	3927	378	278	21	3702	19
NOV	85	23	3834	186	67	20	3994	398	51	11	3753	30
	RIPLEY				S CHARLESTON				WILMINGTON			
APR	309	59	309	59	265	71	265	71	276	77	276	77
MAY	481	62	790	121	440	69	705	140	438	61	714	138
JUN	641	23	1431	144	617	33	1322	173	609	19	1323	157
JUL	791	50	2222	194	730	23	2052	196	734	24	2057	181
AUG	653	-56	2875	138	614	-45	2666	151	595	-72	2652	109
SEP	575	76	3450	214	547	94	3213	245	552	96	3204	205
OCT	318	36	3768	250	282	40	3495	285	292	44	3496	249
NOV	69	-4	3837	246	47	13	3542	298	54	16	3550	265
	OXFORD				CALDWELL				JACKSON			
APR	279	28	279	28	307	82	307	82	315	82	315	82
MAY	448	13	727	41	437	56	744	138	475	83	790	165
JUN	635	-20	1362	21	608	45	1352	183	604	37	1394	202
JUL	752	-17	2114	4	742	62	2094	245	760	57	2154	259
AUG	651	-75	2765	-71	647	-6	2741	239	651	-8	2805	251
SEP	576	57	3341	-14	542	88	3283	327	563	109	3368	360
OCT	308	14	3649	0	304	44	3587	371	350	79	3718	439
NOV	52	-17	3701	-17	54	5	3641	376	74	7	3792	446
	ZANESVILLE				HUNTINGTON				PARKERSBURG			
APR	288	100	288	100	373	76	373	76	327	75	327	75
MAY	461	101	749	201	552	73	925	149	476	70	803	145
JUN	631	71	1380	272	698	16	1623	165	639	76	1442	221
JUL	751	57	2131	329	831	49	2454	214	789	94	2231	315
AUG	651	1	2782	330	720	-41	3174	173	674	15	2905	330
SEP	558	121	3340	451	640	77	3814	250	587	130	3492	460
OCT	315	83	3655	534	353	41	4167	291	330	50	3822	510
NOV	59	23	3714	557	93	-10	4260	281	73	7	3895	517

1/ DEVIATIONS FROM NORMAL GROWING DEGREE DAYS (GDD) ARE DERIVED USING GDD OVER A 30-YEAR PERIOD. THESE NORMALS ARE UPDATED EAC DECADE, AND STATIONS WITHOUT DEVIATIONS HAD LESS THAN 30 YEARS OF DATA DURING THE PERIOD 1941-70.

PLANTING PROGRESS: CORN, SOYBEANS, OATS, OHIO, 1986, 1985 AND AVERAGE 1981-85

Date	Corn			Soybeans			Oats		
	1986	1985	1981-85 average	1986	1985	1981-85 average	1986	1985	1981-85 average
	Percent								
Apr. 10							42	24	22
20		10					68	59	37
30	20	52	21				86	92	64
May 10	66	85	44	21	29	13	97	100	83
20	89	94	63	52	60	35	100		94
30	98	100	78	68	80	50			
Jun. 10	100		91	88	93	75			
20			96	94	100	99			
30			98	99		96			
Jul. 10				100		100			

CORN DEVELOPMENT: OHIO, 1986, 1985, 1981-85 AVERAGE

Silked				Dough				Mature			
Date	1986	1985	1981-85 average	Date	1986	1985	1981-85 average	Date	1986	1985	1981-85 average
	Percent										
Jul. 10	20	6									
20	64	55	36								
30	90	88	68	Jul. 30	33	29	15				
Aug. 10	100	100	91	Aug. 10	78	64	39				
20			99	20	94	100	75				
30				30	100		91	Aug. 30	10	7	4
				Sep. 10			100	Sep. 10	31	22	27
				20				20	61	53	57
								30	81	96	81
								Oct. 10	93	100	92
								20	100		97
								30			100

PLANTING PROGRESS: WINTER WHEAT, OHIO, 1986, 1985 AND AVERAGE 1981-85

Date	Wheat harvest following year		
	1986	1985	1981-85 average
	Percent		
Sep. 20	2	5	3
30	5	20	17
Oct. 10	15	54	48
20	38	78	76
30	75	92	90
Nov. 10	90	97	97
20	98	100	99

HARVESTING PROGRESS: CORN AND SOYBEANS, OHIO, 1986, 1985 AND AVERAGE 1981-85

Date	Corn for grain			Soybeans		
	1986	1985	1981-85 average	1986	1985	1981-85 average
	Percent					
Sep. 20	5	4	5	8	3	4
30	13	11	10	16	18	16
Oct. 10	17	20	17	23	48	40
20	33	36	31	50	67	62
30	56	52	50	79	83	79
Nov. 10	74	65	68	90	89	88
20	87	72	81	95	91	94
30	93	78	91	97	93	97

HARVESTING PROGRESS: WHEAT, OATS, OHIO, 1986, 1985, AND AVERAGE 1981-85

Date	Wheat			Oats		
	1986	1985	1981-85 average	1986	1985	1981-85 average
	Percent					
Jun. 30	6	12	2			
Jul. 10	52	49	24	3	3	1
20	82	89	84	20	23	13
30	97	99	99	75	62	53
Aug. 10	100	100		94	89	85
20				100	97	96
30					100	

DAYS FAVORABLE FOR FIELD WORK: OHIO, 1986, 1985 AND AVERAGE 1981-85

Date	1986		1985		1981-85	
	7-day	Cumulative	7-day	Cumulative	7-day	Cumulative
			Number of days			
Apr. 8			0.6	0.6		
15	4.8	4.8	2.3	2.9	1.9	1.9
22	2.7	7.5	6.6	9.5	2.7	4.6
29	5.2	12.7	6.5	16.0	4.3	8.9
May 6	5.9	18.6	4.1	20.1	3.2	12.1
13	5.8	24.4	6.7	26.8	3.9	16.0
20	3.2	27.6	2.1	28.9	3.5	19.5
27	3.0	30.6	4.7	33.6	3.3	22.8
Jun. 3	5.0	35.6	4.1	37.7	3.4	26.2
10	3.5	39.1	5.0	42.7	4.5	30.7
17	3.5	42.6	1.4	44.1	3.9	34.6
24	5.2	47.8	5.0	49.1	4.9	39.5
Jul. 1	4.3	52.1	6.3	55.4	5.2	44.7
8	4.8	56.9	4.8	60.2	4.8	49.5
15	3.8	60.7	5.0	65.2	6.1	55.6
22	5.9	66.6	6.3	71.5	5.6	61.2
29	6.6	73.2	6.2	77.7	5.6	66.8
Aug. 5	6.7	79.9	5.5	83.2	5.5	72.3
12	5.4	85.3	4.2	87.4	5.4	77.7
19	6.6	91.9	5.1	92.5	6.3	84.0
26	6.2	98.1	5.0	97.5	6.0	90.0
Sep. 2	5.7	103.8	5.9	103.4	5.2	95.2
9	6.0	109.8	6.3	109.7	5.6	100.8
16	5.8	115.6	6.5	116.2	5.6	106.4
23	4.0	119.6	6.8	123.0	5.6	112.0
30	2.6	122.2	5.6	128.6	5.1	117.1
Oct. 7	1.6	123.8	6.1	134.7	5.5	122.6
14	4.6	128.4	5.2	139.9	5.3	127.9
21	6.3	134.7	4.3	144.2	4.6	132.5
28	4.6	139.3	5.6	149.8	4.4	136.9
Nov. 4	5.8	145.1	3.1	152.9	3.9	140.8
11	3.5	148.6	0.8	153.7	4.1	144.9
18	4.4	153.0	0.4	154.1	2.5	147.4
25	2.7	155.7	3.2	157.3		

MARKETINGS: WHEAT, OATS, CORN, SOYBEANS, PERCENT OF ANNUAL SALES BY MONTHS, OHIO, 1984-85, 1985-86

Month	Wheat		Oats		Month	Corn		Soybeans	
	1984-85	1985-86	1984-85	1985-86		1984-85	1985-86	1984-85	1985-86
	Percent					Percent			
Jul.	58	59	16	35	Sep.	-		5	12
Aug.	14	11	28	28	Oct.	7	17	22	25
Sep.	7	6	11	5	Nov.	21	15	16	9
Oct.	3	2	4	2	Dec.	10	16	6	6
Nov.	2	4	2	2	Jan.	11	13	7	10
Dec.	2	3	5	2	Feb.	8	5	4	5
Jan.	5	5	6	5	Mar.	10	5	9	10
Feb.	3	2	4	5	Apr.	8	5	7	6
Mar.	2	3	8	7	May	6	5	6	5
Apr.	2	3	6	4	Jun.	5	5	7	5
May	1	1	4	3	Jul.	5	5	5	4
Jun.	1	1	6	2	Aug.	4	3	6	3
					Sep.	5	6	-	

CONSUMPTION OF COMMERCIAL FERTILIZERS, OHIO, 1983-86

Specified mixtures and materials	Year ending June 30			
	1983	1984	1985	1986 1/
		Tons		
Mixed fertilizers, all	640,834	766,698	664,427	617,302
6-24-24	81,501	79,474	71,583	64,757
18-46-0	147,000	156,871	132,141	156,772
15-15-15	11,956	10,836	7,740	7,745
Anhydrous ammonia	125,938	136,318	144,174	158,054
Urea	104,791	105,782	98,732	148,660
Ammonium nitrate	9,445	6,916	7,858	9,802
Ammonium sulfate	16,999	17,992	18,222	17,968
Nitrogen solutions	286,381	411,685	426,219	467,976
Superphosphates	65,570	76,530	62,405	68,382
Potassium chloride	349,704	414,003	386,854	439,415
Organics	6,299	1,338	2,115	0
Total all fertilizers 2/	1,622,840	1,963,105	1,838,633	1,938,537
		Percent		
Total dry	66	63	60	NA
Total fluid	34	37	40	NA

1/ From Commercial Fertilizers published by Tennessee Valley Authority , Economics and Marketing Staff, National Fertilizer Developement Center. Earlier years published by U.S. Dept. of Agriculture, National Agricultural Statistics Service. 2/ Not sum of above specified mixtures and materials.

FERTILIZER USE ON CORN AND WHEAT ACREAGE HARVESTED FOR GRAIN AND SOYBEANS FOR BEANS, OHIO, 1986 1/

Crop	Fields in survey	Acres receiving				Rate per acre receiving			Acres fertilized		
		Any fertilizer	N	P_2O_5	K_2O	N	P_2O_5	K_2O	Before seeding	After seeding	At or before & after seeding
	Number	Percent				Pounds			Percent		
Corn	166	98	98	93	92	154	73	102	41	3	56
Soybeans	112	56	23	41	55	14	42	81	95	5	0
Wheat	71	90	99	85	87	72	63	74	14	20	66

1/Based on 1986 Objective Yield Surveys. Published Agricultural Resources Inputs, January 1987.

AVERAGE PRICES PAID BY FARMERS PER TON FOR SELECTED COMMERCIAL FERTILIZERS IN NORTH CENTRAL STATES 1/

Selected fertilizer	December 15, 1985	April 15, 1986	October 15, 1986	April 15, 1987
		Dollars per ton		
5-20-20	145	146	142	146
6-24-24	176	179	173	176
8-32-16	194	198	190	194
10-34-0	217	226	208	212
12-12-12	154	150	144	142
15-15-15	-	163	160	157
18-46-0	221	226	205	221
Ammonium nitrate	165	156	154	147
Urea 44-46%	187	170	156	160
Anhydrous ammonia	227	224	170	183
Nitrogen solution 28%	124	124	105	104
Super phosphate 44-46%	183	186	176	190
Muriate of potash 60% K_2O	106	110	106	114

1/Illinois, Indiana, Iowa, Michigan, Minnesota, Missouri, Ohio and Wisconsin.

1986 LIVESTOCK, DAIRY AND POULTRY DATA

Highlights of the livestock statistics for 1986 showed hog and pig inventories decreased from 1985 to 1986. Cattle numbers also declined during 1986. Milk production increased slighly; contrary to the expected result of the dairy buyout program. All cheese, as well as swiss cheese, production reached new record highs in 1986. Sheep and lamb numbers increased for the second year in a row after declining for 40 years.

Hog producers had 1,950,000 hogs on hand December 1, 1986, 2 percent fewer than a year earlier and the lowest December 1 inventory since 1982. The number of market hogs at 1,680,000 head is 1 percent less than December 1, 1985 and the lowest since 1977. Breeding stock on hand December 1, 1986, numbered 280,000, an increase of 45,000 from September 1, 1986 and 5,000 from a year earlier. The pig crop during the September through November quarter totaled 785,000 pigs, 7 percent fewer than the same quarter last year and the lowest fall quarter since 1982. The average litter size was 7.85 pigs, down 2 percent from a year earlier.

The number of cattle and calves in Ohio on January 1, 1987 was 1,800,000 head, down 2 percent from a year earlier. This is the lowest inventory since 1979 when 1,750,000 cattle and calves were on hand. The record high inventory was 2,417,000 on January 1, 1954. Beef cow numbers on January 1, 1987 were 390,000- up 1 percent from a year earlier. Milk cow numbers at 370,000 head were down 5 percent from a year earlier. Heifers for beef cow replacement at 65,000 head, declined 7 percent from the previous year. Milk cow replacement heifers, at 160,000,declined 3 percent. Other heifers, at 95,000 head, increased 6 percent from Janaury 1, 1986. Steers weighing 500 pounds or more numbered 270,000, down 8 percent from a year earlier; bull inventory at 40,000 head, increased 3 percent. Calves weighing less than 500 pounds advanced 1 percent to 410,000 head. Cattle on feed on January 1, 1987 numbered 200,000, an 8 percent increase from a year earlier. The calf crop produced during 1986 was 700,000 head, down 1 percent from the 1985 calf crop. The total value of the cattle and calf inventory on January 1, 1987, was $840,000,000- the fifth largest value since records began in 1867.

Ohio milk production during 1986 totaled 4.94 billion pounds during 1986, up 1 percent from the 4.87 billion pounds produced during 1985. The 1986 output per cow, at 12,888 pounds, was a new record high breaking the previous record set in 1985 by 336 pounds. Cheese production totaled 107.5 million pounds, up 1 percent from the 1985 record high production. Swiss cheese production also reached a new record high of 57.9 million pounds, up 6 percent from the previous record 54.6 million pounds produced a year ago. Ohio remains number one in the U.S. for swiss cheese production.

The number of sheep in Ohio on January 1, 1987 totaled 300,000 head, a 9 percent increase from a year earlier. The number of sheep on Ohio farms showed a steady decline for the past 40 years, reaching a record low of 265,000 head, on January 1, in both 1984 and 1985. In the past couple of years there has been renewed interest in sheep production. All classifications of sheep showed strong inventory increases. Ewes, one year old and older, at 200,000 head, were up 8 percent and ewe lambs, at 30,000, increased 7 percent. This indicates further flock expansions in 1987. The number of operations with sheep increased from 7,400 in 1985 to 7,500 farms in 1986. The total value of all sheep in Ohio on January 1, 1987, was a record high $22,050,000, surpassing the record set only the previous year by 3 percent. The value per head reached a record high $77.50 for the January 1, 1986 inventory and dropped by $4.00 per head to a current value per head of $73.50.

Preliminary cash receipts for livestock and livestock products totaled $1.5 billion for 1986. This accounts for approximately 44 percent of all farm commodity cash receipts. Prices received for hogs, calves, and sheep and lambs, showed increases from 1985, while cattle prices continued to decline.

Farm value of Ohio poultry production totaled $214.4 million in 1986, ranking second to the record high of $233.0 million in 1984. This reflected record high egg prices received during 1984 because of Avian flu infestations in eastern states.

Ohio egg production advanced to another record high level in 1986 with 3.9 billion eggs, up 8 percent from a year ago. This is the 9th consecutive year that egg production has advanced from the previous year. Egg production in Ohio ranked 5th in the U.S. output. California was first with 7.9 billion eggs produced; Indiana second with 5.6 billion; Pennsylvania third, with 4.7 billion; and Georgia, fourth, with 4.3 billion eggs. These five states accounted for 38 percent of the U.S. production in 1986. Ohio producers received an average of 49 cents per dozen, up 7 cents, or 17 percent, from a year earlier. The value of Ohio's 1986 egg production totaled 157.9 million dollars, or 26 percent, more than 1985.

The number of turkeys raised in 1986 totaled 3.1 million, up 11 percent from the 2.8 million produced in 1985. Producers received 47.0 cents per pound liveweight, down 1 cent from the 1985 average return, of 48.0 cents per pound. The 1986 turkey output had a farm value of $36.7 million compared with $34.1 million in 1985.

Broiler production totaled 42.6 million pounds in 1986, compared with 37.8 million in 1985, for an increase of 13 percent. Producers received 34 cents per pound, up from the 25 cents received in 1985. This brought the farm value of the broiler output to $14.5 million, up 50 percent from last year's total of $9.6 million. These dollars were produced by 9.9 million broilers raised in 1986 and 9.0 million produced in 1985.

OPERATIONS WITH CATTLE, MILK COWS, HOGS OR SHEEP, OHIO, 1980-86

Year	All farms	Operations with			
		All cattle	Milk cows	Hogs	Sheep
1980	95,000	49,000	12,600	20,000	8,000
1981	94,000	48,000	12,300	20,000	7,900
1982	93,000	47,000	12,000	16,000	8,000
1983	92,000	46,000	11,700	16,000	7,700
1984	90,000	45,000	11,300	15,000	7,500
1985	89,000	45,000	11,000	15,000	7,400
1986	88,000	44,000	10,600	13,000	7,500

CATTLE AND CALVES: ON FARMS JANUARY 1, OHIO, 1986-87

Species	1986	1987	Percent change 87/86
	Thousand head		Percent
All cattle and calves	1,840	1,800	98
Cows and heifers that have calved	775	760	98
Beef	385	390	101
Milk	390	370	95
Heifers 500 pounds and over:			
Beef replacement	70	65	93
Milk replacement	165	160	97
Other	90	95	106
Steers 500 pounds and over	295	270	100
Bulls 500 pounds and over	39	40	103
Heifers, steers, bulls under 500 pounds	406	410	95
Cattle on feed	185	200	108
Calf crop 1/	710	700	99

1/Previous year.

CATTLE AND CALVES: INVENTORY AND DISPOSITION, OHIO, 1985-87

Year	On hand January 1	Calves born	Inshipments	Marketings		On farm slaughter	Deaths	
				Cattle	Calves		Cattle	Calves
	Thousand head							
1985	1,835	710	140	610	140	5	30	60
1986	1,840	700	115	607	148	5	35	60
1987	1,800							

CATTLE AND CALVES: PRODUCTION AND INCOME, OHIO, 1984-86

Year	Production	Marketings	Average price per 100 lbs.		Cash receipts	Value of home consumption	Gross income
			Cattle	Calves			
	Thousand pounds		Dollars		Thousand dollars		
1984	615,370	637,020	54.80	52.40	348,436	27,726	376,162
1985	616,890	676,350	50.40	55.20	342,421	16,613	359,034
1986	611,370	683,850	50.00	56.30	344,628	16,508	361,136

MILK: COWS ON FARMS, MILK PER COW, MILK PRODUCTION, MILKFAT BY MONTHS, OHIO, 1985-86

Month	Cows on farm		Milk per cow		Milk production		Milkfat-all milk	
	1985	1986	1985	1986	1985	1986	1985	1986
	Thousand head		Pounds		Million pounds		Percent	
January	385	390	990	1,050	381	410	3.89	3.87
February	380	388	950	990	361	384	3.88	3.83
March	382	388	1,060	1,085	405	421	3.79	3.79
April	385	387	1,050	1,095	404	424	3.70	3.69
May	391	387	1,125	1,165	440	451	3.54	3.60
June	391	384	1,090	1,120	426	430	3.52	3.55
July	390	382	1,090	1,110	425	424	3.52	3.51
August	390	382	1,070	1,085	417	414	3.52	3.50
September	389	380	1,030	1,050	401	399	3.59	3.61
October	390	378	1,050	1,060	410	401	3.72	3.70
November	388	374	1,005	1,030	390	385	3.81	3.82
December	390	371	1,050	1,060	410	393	3.87	3.87
Annual	**388**	**383**	**12,552**	**12,888**	**4,870**	**4,936**	**3.70**	**3.70**

MILK PRODUCTION AND DISPOSITION, OHIO, 1984-86

Year	Milk used where produced			Milk marketed by producers				Total milk produced
	Fed to calves	Used for milk, cream and butter	Total	Sold to plants & dealers: As whole milk	Sold to plants & dealers: As separated cream	Sold 1/ directly to consumers	Total marketed	
	Million pounds							
1984	50	20	70	4,565	-	15	4,580	4,650
1985	35	20	55	4,800	-	15	4,815	4,870
1986	40	20	60	4,860	-	16	4,876	4,936

1/Includes institutional herds

MILK: QUANTITY MARKETED, PRICE, CASH RECEIPTS AND VALUE, OHIO, 1985-86

Year	Combined marketings milk & cream			Used for milk, cream & butter where produced		Gross producer income	Value of milk produced
	Milk utilized	Price per 100 lbs.	Cash receipts from marketings	Milk utilized	Value		
	Mil. lbs.	Dollars	1,000 dol.	Mil. lbs.	1,000 dol.	1,000 dol.	1,000 dol.
1985	4,815	12.85	618,586	20	2,569	621,155	625,652
1986	4,876	12.56	612,263	20	2,511	614,774	619,797

MILK COWS: PERCENT OF OPERATIONS AND INVENTORY BY SIZE GROUPS, OHIO, 1985-86

Item	Size of operation							
	1-29		30-49		50-99		100+	
	1985	1986	1985	1986	1985	1986	1985	1986
	Percent							
Operations	52.7	49.0	19.1	18.9	21.8	26.4	6.4	5.7
Inventory	19.2	16.8	21.8	17.8	38.5	45.9	20.5	19.5

ALL CATTLE

(THOUSAND HEAD)
JANUARY 1, 1987

SYMBOL	THOUSAND HEAD TOP TEN COUNTIES
1-10	32.0 AND OVER
	25.0 - 31.9
	15.0 - 24.9
	UNDER 15.0

MILK COWS

(THOUSAND HEAD)
JANUARY 1, 1987

SYMBOL	THOUSAND HEAD TOP TEN COUNTIES
1-10	9.3 AND OVER
	5.0 - 9.2
	2.0 - 4.9
	UNDER 2.0

OHIO COUNTY ESTIMATES
ALL CATTLE AND MILK COWS: ON FARMS, JANUARY 1, 1986-1987
ALL MILK SOLD TO PLANTS AND DEALERS, OHIO, 1985-1986

COUNTY & DISTRICT	ALL CATTLE AND CALVES		MILK COWS AND HEIFERS THAT HAVE CALVED		MILK SOLD	
	JANUARY 1 1986	JANUARY 1, 1987	JANUARY 1 1986	JANUARY 1, 1987	1985	1986
	HEAD				(MIL. LBS.)	
Allen	13,000	13,000	1,700	1,500	21.0	21.0
Defiance	13,000	12,000	2,300	2,200	23.0	23.0
Fulton	29,000	28,000	3,000	3,000	37.0	41.0
Hancock	7,000	6,500	1,300	1,400	10.0	15.0
Henry	11,000	9,000	2,000	2,100	19.0	22.0
Lucas	2,000	1,500	*	*	*	*
Paulding	6,000	6,000	*	*	*	*
Putnam	15,000	14,000	3,600	4,100	46.0	55.0
Van Wert	6,000	5,000	1,800	1,600	18.0	19.0
Williams	24,000	26,000	2,800	3,000	41.0	45.0
Wood	9,000	9,000	*	*	*	*
DISTRICT 1	**135,000**	**130,000**	**21,000**	**21,000**	**239.0**	**268.0**
Ashland	40,000	43,000	12,800	12,600	154.0	153.0
Crawford	16,000	16,000	2,600	2,200	34.0	32.0
Erie	10,000	10,000	2,100	1,900	18.0	15.0
Huron	13,000	12,000	4,900	4,400	72.0	69.0
Lorain	16,000	15,500	6,500	6,000	85.0	85.0
Ottawa	2,000	2,000	*	*	*	*
Richland	26,000	21,000	6,400	5,900	84.0	80.0
Sandusky	13,000	12,000	2,000	2,200	21.0	25.0
Seneca	16,000	14,000	3,400	3,300	40.0	43.0
Wyandot	8,000	7,500	*	*	*	*
DISTRICT 2	**160,000**	**153,000**	**43,000**	**40,500**	**531.0**	**525.0**
Ashtabula	30,000	27,000	14,400	13,500	163.0	166.0
Columbiana	29,000	27,000	13,500	13,000	161.0	163.0
Cuyahoga	*	*	*	*	*	*
Geauga	15,000	15,000	5,700	5,200	65.0	66.0
Lake	*	*	*	*	*	*
Mahoning	16,000	15,000	6,700	6,500	77.0	73.0
Medina	25,000	23,000	8,400	8,000	113.0	112.0
Portage	16,000	15,000	4,700	4,600	61.0	62.0
Stark	35,000	32,000	13,500	13,800	187.0	192.0
Summit	2,000	2,000	*	*	*	*
Trumbull	20,000	19,000	7,000	6,900	89.0	92.0
Wayne	100,000	105,000	37,500	36,900	508.0	515.0
DISTRICT 3	**290,000**	**282,000**	**112,000**	**109,000**	**1,433.0**	**1,449.0**
Auglaize	32,000	30,000	10,200	10,000	142.0	144.0
Champaign	33,000	29,900	6,400	6,000	77.0	75.0
Clark	43,000	48,000	2,200	2,200	19.0	17.0
Darke	42,000	46,000	10,600	10,200	147.0	149.0
Hardin	19,000	19,000	3,600	3,100	34.0	33.0
Logan	30,000	27,000	7,000	6,500	113.0	107.0
Mercer	57,000	57,000	17,500	17,300	278.0	283.0
Miami	19,000	19,000	1,900	1,900	30.0	31.0
Shelby	34,000	32,000	10,400	9,300	144.0	136.0
DISTRICT 4	**309,000**	**307,000**	**70,000**	**66,500**	**984.0**	**975.0**
Delaware	14,000	12,000	2,500	2,200	27.0	27.0
Fairfield	28,000	27,000	4,000	3,500	47.0	47.0
Fayette	13,000	12,000	*	*	*	*
Franklin	6,000	7,000	1,400	1,200	14.0	13.0
Know	29,000	30,000	9,600	9,000	107.0	110.0
Licking	37,000	31,000	5,800	5,400	63.0	65.0
Madison	22,000	23,000	2,500	2,500	23.0	27.0
Marion	11,000	10,000	1,500	1,500	14.0	16.0
Morrow	16,000	17,000	3,400	2,900	31.0	31.0
Pickaway	25,000	28,000	1,600	1,600	13.0	17.0
Ross	28,000	29,000	1,700	1,700	14.0	16.0
Union	21,000	25,000	4,400	4,000	46.0	46.0
DISTRICT 5	**250,000**	**251,000**	**39,000**	**36,000**	**404.0**	**419.0**

OHIO COUNTY ESTIMATES
ALL CATTLE AND MILK COWS: ON FARMS, JANUARY 1, 1986-1987
ALL MILK SOLD TO PLANTS AND DEALERS, OHIO, 1985-1986

COUNTY & DISTRICT	ALL CATTLE AND CALVES JANUARY 1, 1986	ALL CATTLE AND CALVES JANUARY 1, 1987	MILK COWS AND HEIFERS THAT HAVE CALVED JANUARY 1 1986	MILK COWS AND HEIFERS THAT HAVE CALVED JANUARY 1, 1987	MILK SOLD 1985	MILK SOLD 1986
	HEAD				(MIL. LBS.)	
Belmont	26,000	26,000	4,200	3,900	40.0	42.0
Carroll	27,000	28,000	6,900	6,600	64.0	69.0
Coshocton	27,000	23,000	5,700	4,900	60.0	59.0
Harrison	17,000	17,000	2,700	2,200	33.0	35.0
Holmes	51,000	50,000	24,500	19,900	249.0	235.0
Jefferson	13,000	12,000	1,600	1,500	23.0	24.0
Tuscarawas	30,000	30,000	9,400	9,000	153.0	158.0
DISTRICT 6	**191,000**	**186,000**	**55,000**	**50,000**	**622.0**	**622.0**
Butler	26,000	25,000	3,800	3,700	45.0	46.0
Clermont	10,000	9,000	*	*	*	*
Clinton	14,000	15,000	1,500	1,400	17.0	17.0
Greene	20,000	19,000	*	*	*	*
Hamilton	6,000	5,000	*	*	*	*
Montgomery	11,000	10,000	1,800	1,500	22.0	22.0
Preble	25,000	25,000	3,200	3,100	42.0	46.0
Warren	18,000	17,000	1,900	1,600	19.0	19.0
DISTRICT 7	**130,000**	**125,000**	**14,800**	**13,500**	**177.0**	**183.0**
Adams	33,000	33,000	4,900	4,600	47.0	51.0
Brown	26,000	25,000	3,100	2,500	30.0	27.0
Gallia	21,000	21,000	2,500	2,200	30.0	30.0
Highland	32,000	25,000	3,100	2,800	37.0	35.0
Jackson	13,000	12,000	*	*	*	*
Lawrence	11,000	10,000	*	*	*	*
Pike	11,000	12,000	*	*	*	*
Scioto	13,000	12,000	1,700	1,700	22.0	24.0
DISTRICT 8	**160,000**	**150,000**	**17,500**	**16,000**	**192.0**	**190.0**
Athens	16,000	15,000	1,600	1,500	21.0	22.0
Guernsey	25,000	25,000	1,800	2,000	21.0	24.0
Hocking	8,000	7,000	*	*	*	*
Meigs	15,000	14,000	2,000	2,000	21.0	21.0
Monroe	21,000	20,000	2,800	2,800	29.0	32.0
Morgan	21,000	25,000	1,500	1,500	18.0	17.0
Muskingum	37,000	38,000	3,000	2,900	42.0	45.0
Noble	18,000	18,000	*	*	*	*
Perry	16,000	16,000	1,200	*	15.0	*
Vinton	8,000	8,000	*	*	*	*
Washington	30,000	30,000	3,000	3,000	42.0	44.0
DISTRICT 9	**215,000**	**216,000**	**17,700**	**17,500**	**218.0**	**229.0**
STATE	**1,840,000**	**1,800,000**	**390,000**	**370,000**	**4,800.0**	**4,860.0**

* Counties with less than 1,000 head not published. Counties with more than 1,000 head are also unpublished, if necessary, to preserve the confidentiality of counties with less than 1,000 head

ALL CATTLE AND CALVES: INVENTORY AND VALUE, JANUARY 1, 1985-86

Inventory			Value per head			Total value		
1985	1986	1987	1985	1986	1987	1985	1986	1987
Thousand head			Dollars			Million dollars		
1,835	1,840	1,800	445	435	450	816.6	800.4	810.0

ALL CATTLE AND CALVES: PERCENT OF OPERATIONS AND INVENTORY BY SIZE GROUPS, OHIO, 1984-85

Item	Size of operation							
	1-49		50-99		100-499		500+	
	1984	1985	1984	1985	1984	1985	1984	1985
	Percent							
Operations	80.0	77.8	12.0	13.3	8.0	8.9	1/	1/
Inventory	34.3	32.6	21.2	23.1	37.0	37.0	7.4	7.3

1/ Combined with other size group.

MANUFACTURED DAIRY PRODUCTS: PRODUCTION BY MONTHS, OHIO, 1985-86

Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Total
						American cheese - thousand pounds							
1985	2,852	1,987	1,885	2,758	3,638	3,280	2,948	2,996	2,167	2,533	2,716	3,594	33,354
1986	2,825	1,744	2,474	2,809	3,867	3,479	2,385	2,309	2,161	2,289	2,181	2,284	30,807
						Swiss cheese - thousand pounds							
1985	3,900	3,697	4,378	4,585	5,166	4,791	4,617	4,179	5,029	5,041	4,299	4,905	54,587
1986	5,422	5,135	4,705	4,913	5,666	5,271	5,218	5,196	4,771	4,208	3,493	3,922	57,920
						All cheese - thousand pounds							
1985	8,299	7,382	8,054	8,763	10,072	9,524	9,114	8,635	8,699	9,292	8,609	10,165	106,608
1986	9,707	8,411	8,834	9,182	11,177	10,320	9,093	9,011	8,557	8,183	7,179	7,833	107,487
						Butter - thousand pounds							
1985	1,873	1,505	1,697	2,340	2,446	1,324	901	854	1,050	2,161	1,558	2,139	19,858
1986	2,848	2,677	2,391	2,560	2,299	1,262	925	692	966	1,195	1,100	1,375	20,290
						Cottage cheese curd - thousand pounds							
1985	2,074	2,062	2,296	2,209	2,281	2,071	1,643	2,417	2,061	2,332	2,263	1,998	25,707
1986	2,041	2,039	1,948	2,114	2,258	1,667	2,108	2,007	1,950	2,022	3,083	1,844	25,081
						Cottage cheese, lowfat - thousand pounds							
1985	1,017	1,109	1,363	1,086	1,132	1,040	592	1,271	1,000	1,134	1,435	989	13,168
1986	1,189	1,181	1,136	1,472	1,247	838	1,292	1,274	1,177	1,352	1,009	1,051	14,218
						Cottage cheese, creamed - thousand pounds							
1985	3,370	3,155	3,423	3,480	3,728	3,353	3,229	3,808	3,518	3,344	3,407	3,126	40,941
1986	3,368	3,384	3,447	3,584	4,128	3,312	3,730	3,668	3,661	4,308	3,741	3,396	43,727
						Ice cream mix - thousand gallons							
1985	1,559	1,515	1,660	2,050	2,443	2,307	2,755	2,570	2,327	1,870	1,330	1,628	24,014
1986	1,638	1,618	2,030	2,121	2,297	2,604	2,652	2,449	2,217	1,807	1,575	1,876	24,884
						Milk sherbet mix - thousand gallons							
1985	115	106	166	207	219	242	249	206	172	134	127	134	2,077
1986	115	137	185	238	255	264	331	270	210	182	162	172	2,521
						Ice Cream - thousand gallons							
1985	2,934	2,932	3,689	3,623	4,157	4,396	4,800	4,656	4,256	3,509	2,912	3,242	45,106
1986	3,020	2,920	3,721	3,774	3,960	4,595	4,819	4,315	4,190	3,488	3,135	3,507	45,444
						Ice milk - thousand gallons							
1985	532	562	811	1,474	1,653	1,659	1,830	1,587	1,127	774	461	390	12,860
1986	480	883	1,110	1,449	1,639	1,803	1,953	1,611	1,236	921	462	600	14,147
						Milk sherbet - thousand gallons							
1985	176	154	267	290	295	330	349	299	267	218	196	215	3,056
1986	179	228	242	350	389	355	327	303	228	268	209	260	3,338
						Water ices - thousand gallons							
1985	107	172	247	457	510	553	319	270	243	45	65	43	3,031
1986	48	74	173	219	264	320	266	137	47	76	15	32	1,671

ALL HOGS AND PIGS: QUARTERLY INVENTORY, BY CLASSES, OHIO, 1986-87

Year and quarter	Total hogs	Breeding hogs	Market hogs and pigs				
			Under 60 lbs.	60-119 lbs.	120-179 lbs.	180 lbs. and over	Total
	Thousand head						
1986							
March 1	1,860	235	600	360	365	300	1,625
June 1	1,670	220	630	360	260	200	1,450
September 1	1,650	225	585	355	275	210	1,425
December 1	2,000	280	660	440	330	290	1,720
1987							
March 1	1,920	250	625	385	380	280	1,670

HOGS: INVENTORY NUMBER, PIG CROP, AND DISPOSITION, OHIO, 1984-87

Year	December 1 inventory 1/	Pig crop		Inshipments	Marketings 2/	Farm slaughter 3/	Deaths
		Dec.-May	Jun.-Nov.				
	Thousand head						
1984	2,200	1,498	1,593	190	3,301	10	200
1985	1,970	1,493	1,693	162	3,131	12	195
1986	1,980	1,422	1,517	211	2,988	7	185
1987	1,950						

1/December 1 previous year. 2/Excludes interfarm sales. 3/Excludes custom slaughter for farmers at commercial establishments.

HOGS: PRODUCTION AND INCOME, OHIO, 1984-86

Year	Production	Marketings	Price per cwt.	Cash receipts	Value of home consumption	Gross income
	Thousand pounds		Dollars	Thousand dollars		
1984	731,518	768,471	48.30	371,409	2,805	374,214
1985	744,650	742,253	44.40	327,711	1,619	331,532
1986	707,313	715,131	49.50	354,126	1,560	355,686

SOW FARROWINGS, PIGS PER LITTER, AND PIG CROP, OHIO, 1985-86

Year	December-May pig crop 1/			June-November pig crop		
	Sows farrowing	Pigs/litter	Pig crop	Sows farrowing	Pigs/litter	Pig crop
	Thou. head	Head	Thou. head	Thou. head	Head	Thou. head
1985	190	7.86	1,493	213	7.95	1,693
1986	180	7.90	1,422	195	7.78	1,517

1/December previous year.

HOGS AND PIGS: PERCENT OF OPERATIONS AND INVENTORY BY SIZE GROUP, OHIO, 1985-86

Item	Size of operation					
	1-99		100-499		500+	
	1985	1986	1985	1986	1985	1986
	Percent					
Operations	73.4	72.3	21.3	22.3	5.3	5.4
Inventory	14.2	12.0	39.0	40.7	46.8	47.3

SHEEP AND LAMBS, JANUARY 1, OHIO, 1985-87

Year	Total	Sheep on feed	Stock sheep and lambs	Lambs		One year and older		New crop lambs 1/
				Ewes	Wethers and rams	Ewes	Wethers and rams	
	Thousand head							
1985	265	45	220	27	5	181	7	11
1986	275	50	225	28	5	185	7	12
1987	300	55	245	30	7	200	8	

1/Not included in total inventory.

SHEEP: INVENTORY AND DISPOSITION, OHIO, 1985-87

Year	Inventory January 1	Lamb crop	Inship-ments	Marketings		Farm slaughter	Deaths	
				Sheep	Lambs		Sheep	Lambs
	Thousand head							
1985	265	215	8	21	152	4	13	23
1986	275	230	3	4	159	4	12	25
1987	300							

SHEEP: PRODUCTION AND INCOME, OHIO, 1984-86

Year	Production	Marketings	Average price per cwt.		Cash receipts	Value of home consumption	Gross income
			Sheep	Lambs			
	Thousand pounds		Dollars		Thousand dollars		
1984	17,340	17,119	17.30	59.20	9,171	334	9,505
1985	17,205	16,255	34.90	66.90	10,203	416	10,619
1986	20,015	16,820	37.30	68.00	11,217	249	11,465

WOOL: PRODUCTION AND VALUE, OHIO, 1984-86

Year	Sheep shorn	Weight per fleece	Production	Price per pound	Value
	Thousand head	Pounds	Thousand pounds	Cents	Thousand dollars
1984	260	7.2	1,868	55	1,027
1985	260	7.4	1,921	45	864
1986	270	7.3	1,956	46	900

STOCK SHEEP

(THOUSAND HEAD)
JANUARY 1, 1987

SYMBOL	THOUSAND HEAD TOP TEN COUNTIES
1-10	5.5 AND OVER
	3.0 - 5.4
	1.5 - 2.9
	UNDER 1.5

HOGS AND PIGS

(THOUSAND HEAD)
DECEMBER 1, 1986

SYMBOL	THOUSAND HEAD TOP TEN COUNTIES
1-10	45.0 AND OVER
	30.0 - 44.9
	10.0 - 29.9
	UNDER 10.0

OHIO COUNTY ESTIMATES
HOGS AND PIGS: NUMBER ON FARMS, DECEMBER 1, 1985-1986
STOCK SHEEP: NUMBER ON FARMS, OHIO, JANUARY 1, 1986-1987

COUNTY & DISTRICT	HOGS AND PIGS DECEMBER 1, 1985	DECEMBER 1, 1986	STOCK SHEEP JANUARY 1, 1986	JANUARY 1, 1987
		HEAD		
Allen	41,000	38,000	2,000	1,800
Defiance	21,000	22,000	*	*
Fulton	83,000	90,000	*	*
Hancock	31,000	29,000	4,700	5,500
Henry	31,000	34,000	1,500	1,200
Lucas	12,000	12,000	*	*
Paulding	8,000	9,000	*	*
Putnam	80,000	75,000	2,100	*
Van Wert	18,000	18,000	*	1,400
Williams	35,000	35,000	2,300	2,100
Wood	15,000	18,000	1,700	1,600
DISTRICT 1	**375,000**	**380,000**	**18,000**	**17,500**
Ashland	25,000	22,000	5,200	4,700
Crawford	23,500	22,000	3,700	4,100
Erie	4,000	4,000	1,200	*
Huron	17,000	15,000	3,600	4,000
Lorain	6,000	5,000	1,700	1,800
Ottawa	4,500	6,000	*	*
Richland	19,000	22,000	2,900	3,000
Sandusky	16,000	17,000	2,000	1,800
Seneca	36,000	30,000	6,300	6,500
Wyandot	24,000	27,000	3,900	4,500
DISTRICT 2	**175,000**	**170,000**	**31,000**	**32,000**
Ashtabula	5,500	6,000	*	*
Columbiana	8,000	8,000	1,600	2,600
Cuyahoga	*	*	*	*
Geauga	3,000	3,000	*	*
Lake	*	*	*	*
Mahoning	4,500	5,000	*	*
Medina	9,000	10,500	1,700	2,000
Portage	4,500	4,000	*	*
Stark	12,000	11,000	1,700	2,000
Summit	*	*	*	*
Trumbull	2,500	2,500	*	*
Wayne	55,000	49,000	3,700	4,600
DISTRICT 3	**105,000**	**100,000**	**13,000**	**16,000**
Auglaize	47,000	45,000	2,500	3,000
Champaign	25,000	24,000	2,900	4,000
Clark	35,000	37,000	1,700	1,800
Darke	120,000	111,000	4,000	3,600
Hardin	31,000	34,000	5,000	5,500
Logan	25,000	24,000	5,400	6,000
Mercer	87,000	88,000	1,600	2,400
Miami	36,000	38,000	2,000	3,000
Shelby	44,000	49,000	2,900	2,700
DISTRICT 4	**450,000**	**450,000**	**28,000**	**32,000**
Delaware	21,000	22,000	3,000	3,100
Fairfield	34,000	40,000	3,900	4,500
Fayette	60,000	55,000	2,900	3,500
Franklin	6,500	7,000	1,200	1,500
Knox	29,500	28,000	10,300	11,500
Licking	16,000	17,000	7,400	8,800
Madison	39,000	45,000	2,100	3,000
Marion	28,000	30,000	3,900	4,500
Morrow	24,000	20,000	5,000	6,500
Pickaway	45,000	40,000	1,300	1,300
Ross	29,000	26,000	2,100	1,900
Union	28,000	35,000	7,400	6,400
DISTRICT 5	**360,000**	**365,000**	**60,500**	**56,500**

OHIO COUNTY ESTIMATES
HOGS AND PIGS: NUMBER ON FARMS, DECEMBER 1, 1985-1986
STOCK SHEEP: NUMBER ON FARMS, OHIO, JANUARY 1, 1986-1987

COUNTY & DISTRICT	HOGS AND PIGS DECEMBER 1, 1985	DECEMBER 1, 1986	STOCK SHEEP JANUARY 1 1986	JANUARY 1, 1987
		HEAD		
Belmont	*	*	2,600	3,200
Carroll	4,000	3,000	2,400	2,200
Coshocton	27,000	24,000	7,500	7,000
Harrison	*	*	8,000	8,200
Holmes	46,000	49,000	2,400	2,200
Jefferson	2,000	2,500	*	*
Tuscarawas	9,000	9,500	3,000	3,100
DISTRICT 6	**90,000**	**90,000**	**26,500**	**26,500**
Butler	25,000	25,000	1,800	1,700
Clermont	4,000	4,000	*	*
Clinton	83,000	90,000	2,700	3,300
Greene	80,000	75,000	2,900	2,800
Hamilton	*	*	*	*
Montgomery	24,000	29,000	1,300	1,100
Preble	72,000	72,000	2,900	2,000
Warren	21,000	24,000	1,300	1,700
DISTRICT 7	**310,000**	**320,000**	**14,000**	**13,500**
Adams	13,000	15,000	1,300	1,500
Brown	8,000	7,000	*	*
Gallia	3,500	3,500	*	*
Highland	32,000	36,000	3,400	4,000
Jackson	4,500	4,000	*	*
Lawrence	*	*	*	*
Pike	6,500	7,000	*	*
Scioto	2,000	2,000	*	*
DISTRICT 8	**70,000**	**75,000**	**8,000**	**9,000**
Athens	1,500	2,000	2,000	1,700
Guernsey	3,000	3,000	2,800	3,300
Hocking	2,500	* 2,500	1,700	2,000
Meigs	1,600	1,500	*	*
Monroe	*	1,500	1,800	2,300
Morgan	3,000	5,000	3,600	3,300
Muskingum	18,500	20,000	11,500	16,300
Noble	*	1,500	6,000	4,600
Perry	5,500	5,500	3,000	4,400
Vinton	1,500	2,000	*	*
Washington	6,000	5,500	2,400	3,000
DISTRICT 9	**45,000**	**50,000**	**36,000**	**42,000**
STATE	**1,980,000**	**2,000,000**	**225,000**	**245,000**

* Counties with less than 1,000 head not published. Counties with more than 1,000 head are unpublished, if necessary, to preserve the confidentially of counties with less than 1,000 head

CHICKENS: NUMBER OF HENS AND PULLETS OF LAYING AGE DECEMBER 1, OHIO, 1983-86

District	HENS AND PULLETS OF LAYING AGE 1983	1984	1985	1986
		Thousands		
1	1,750	1,860	1,750	1,600
2	300	250	250	240
3	1,150	1,200	1,250	1,100
4	4,400	5,050	5,450	5,920
5	3,900	4,950	5,600	5,750
6	320	320	320	340
7	140	120	120	130
8	210	230	240	260
9	230	220	220	200
State	**12,400**	**14,200**	**15,200**	**15,540**

STOCKS IN COLD STORAGE, EAST NORTH CENTRAL(ENC) 1/ AND 48 STATES, END OF MONTH, 1985-86

Month	ENC		48 States		ENC		48 States		ENC		48 States	
	1985	1986	1985	1986	1985	1986	1985	1986	1985	1986	1985	1986
						1,000 pounds						
	American cheese				Swiss cheese				Butter			
Jan.	274,828	295,212	865,655	742,075	3,782	4,663	11,575	10,784	72,668	45,417	277,277	206,259
Feb.	272,400	286,344	843,965	721,916	3,599	4,951	11,043	12,366	71,594	64,941	289,433	242,369
Mar.	266,573	287,631	806,382	724,643	3,110	4,752	10,953	11,547	77,466	82,198	291,669	283,270
Apr.	277,871	286,991	791,854	742,876	3,518	4,882	11,517	11,660	73,980	86,725	272,695	304,950
May	301,563	302,064	802,976	778,478	3,607	4,955	10,960	11,577	79,771	97,705	283,191	330,823
Jun.	330,728	318,903	846,826	794,408	4,536	5,097	12,418	11,052	85,066	100,719	286,800	342,785
Jul.	351,059	323,986	853,562	815,068	4,938	5,775	11,219	11,540	76,176	91,881	280,664	337,641
Aug.	344,546	318,703	856,816	816,002	5,058	6,071	12,271	11,852	69,508	77,240	264,608	304,351
Sep.	334,591	280,613	841,485	759,888	5,406	5,998	12,059	12,634	62,778	69,922	247,023	279,621
Oct.	306,988	252,162	794,558	711,222	5,287	5,232	12,011	10,974	52,135	49,822	231,598	253,271
Nov.	301,659	232,520	782,505	665,473	4,572	3,767	11,615	9,672	37,732	40,736	206,891	218,527
Dec.	296,562	208,212	758,815	601,669	4,750	4,251	12,092	10,726	35,582	33,290	205,514	192,963
	Eggs, frozen				Broiler-fryers				Whole Turkeys			
Jan.	1,837	2,427	14,895	12,672	3,190	3,442	21,746	26,637	6,671	10,667	68,112	87,591
Feb.	1,685	2,400	13,896	12,762	3,211	3,845	22,907	25,179	8,760	13,148	70,565	96,499
Mar.	1,605	2,027	13,526	10,676	3,144	3,489	24,075	23,751	8,861	12,426	70,817	84,365
Apr.	1,843	2,893	13,213	12,458	3,432	3,751	26,225	22,330	11,865	16,957	92,851	117,413
May	1,915	2,451	14,419	11,618	3,612	4,035	27,979	23,740	13,883	21,791	120,034	158,412
Jun.	2,073	2,346	15,288	14,154	3,740	4,125	28,510	23,297	18,185	26,019	174,042	215,758
Jul.	2,221	2,719	18,034	15,131	4,133	4,130	30,558	23,959	29,079	40,563	227,398	298,042
Aug.	2,137	2,724	18,401	15,042	3,821	4,054	29,309	24,312	42,212	53,629	303,882	357,964
Sep.	2,175	2,671	16,384	13,961	3,680	4,018	27,726	24,981	53,992	62,079	358,052	416,085
Oct.	2,281	2,976	15,134	14,014	3,770	4,913	27,747	25,302	60,591	65,880	402,673	450,639
Nov.	2,516	2,721	13,845	12,977	3,554	5,504	27,581	22,491	19,096	21,716	135,906	174,256
Dec.	2,224	2,548	13,181	12,843	3,461	5,672	26,558	23,889	9,757	15,362	78,324	105,709
	Frozen beef, boneless				Frozen beef cuts				Frozen pork picnics			
Jan	62,193	49,698	342,140	283,346	4,092	2,630	32,998	35,092	1,881	1,334	11,653	5,841
Feb.	57,545	46,512	314,727	276,437	3,983	2,192	32,296	25,883	1,948	1,377	11,623	5,609
Mar.	52,811	40,634	300,811	271,301	3,476	2,358	33,142	25,801	3,434	2,097	13,901	8,709
Apr.	53,071	43,507	294,628	276,157	3,949	2,608	33,421	25,079	3,389	1,922	13,142	7,659
May	46,252	42,677	269,500	288,914	3,511	3,046	31,438	29,584	3,644	2,283	13,475	7,256
Jun.	41,674	43,654	265,057	291,641	2,891	3,265	30,452	30,006	3,364	1,601	11,095	5,249
Jul.	42,963	40,744	288,056	304,214	3,091	3,012	31,595	32,766	2,645	424	9,541	4,237
Aug.	40,670	35,570	281,373	281,611	3,650	3,305	29,215	37,807	2,345	478	6,785	3,890
Sep.	42,351	32,770	278,939	260,639	4,003	2,917	29,423	30,975	2,232	426	6,230	4,142
Oct.	47,581	36,089	265,689	263,000	2,962	2,812	29,216	29,324	2,085	476	7,101	4,525
Nov.	48,353	40,778	272,039	269,065	2,798	3,266	30,217	28,417	1,413	369	5,541	4,390
Dec.	50,572	40,899	284,056	280,534	2,697	3,190	33,370	30,020	1,151	188	4,255	3,652
	Hams				Bellies				Loins			
Jan.	12,186	7,113	36,546	25,473	14,433	11,490	53,623	47,633	3,082	2,495	11,816	8,598
Feb.	11,472	4,599	39,514	21,098	13,854	12,393	51,633	51,218	3,501	2,490	10,562	8,085
Mar.	6,832	2,257	32,774	15,531	17,044	14,997	68,315	62,508	4,955	3,123	13,423	9,359
Apr.	14,592	6,784	58,882	33,852	20,100	16,418	83,836	68,325	5,733	3,319	15,519	9,690
May	25,052	9,812	81,764	41,142	21,726	16,671	96,040	65,895	5,659	2,487	15,239	8,118
Jun.	26,158	9,741	82,742	43,521	19,401	15,215	88,367	61,547	4,848	1,777	15,226	6,414
Jul.	24,676	10,771	75,701	42,319	14,030	9,322	61,397	40,333	4,568	1,853	13,387	5,109
Aug.	23,299	10,809	73,490	39,537	7,302	4,361	35,764	20,797	3,414	1,874	10,164	4,910
Sep.	22,030	11,862	72,823	39,956	3,710	2,654	20,158	12,941	3,112	1,680	9,274	5,521
Oct.	19,159	13,259	64,680	42,122	6,698	4,416	29,787	17,022	2,643	1,889	7,997	6,025
Nov.	9,058	7,009	37,770	28,469	12,047	6,666	47,427	24,528	3,051	2,257	9,717	7,472
Dec.	2,467	1,994	13,946	9,112	12,458	10,530	51,314	37,771	2,778	2,863	9,769	9,261
	Veal				Lamb and mutton				Canned hams			
Jan.	2,880	3,162	12,840	11,319	1,046	830	7,339	11,615	7,392	6,117	38,685	34,360
Feb.	2,870	2,906	10,819	10,614	816	818	6,840	13,813	9,821	8,783	47,323	41,068
Mar.	2,893	2,715	10,591	10,414	664	721	6,547	11,811	11,593	8,091	47,070	40,044
Apr.	3,466	2,466	10,991	10,216	710	733	7,644	12,754	11,885	8,381	48,723	43,678
May	3,230	2,387	10,563	9,332	668	815	8,068	12,742	11,047	7,931	46,504	41,172
Jun.	3,491	2,462	10,741	9,004	773	787	8,931	14,068	11,376	8,052	51,580	36,544
Jul.	3,819	2,604	11,309	8,877	554	619	9,193	14,318	11,634	8,136	49,428	34,592
Aug.	3,766	2,200	11,066	7,627	672	678	9,541	15,459	11,204	8,403	46,494	37,195
Sep.	3,378	2,300	10,295	7,427	528	664	9,237	14,450	10,405	7,812	44,286	32,901
Oct.	3,761	3,146	11,675	8,258	601	695	10,033	14,641	11,525	7,633	46,802	33,125
Nov.	3,709	3,354	11,406	6,650	579	687	12,525	13,843	9,076	7,487	37,613	30,771
Dec.	3,596	3,326	11,410	6,968	616	656	12,766	12,603	6,580	5,838	31,191	27,594

1/States included are: Ohio, Indiana, Illinois, Michigan, and Wisconsin. Data are collected from warehouses normally holding commodities for 30 days or more.

COMMERCIAL SLAUGHTER: BY MONTH, OHIO, 1985-86 1/

Month	Number of head		Average liveweight		Number of head		Average liveweight	
	1985	1986	1985	1986	1985	1986	1985	1986
	Thousands		Pounds		Thousands		Pounds	
	Cattle				Calves			
January	50.8	50.6	1,095	1,132	7.1	12.1	405	418
February	41.3	38.4	1,110	1,127	5.6	8.5	424	416
March	45.8	38.2	1,123	1,137	6.4	10.7	422	424
1st quarter	137.9	127.2	1,109	1,132	19.1	31.3	417	419
April	45.6	45.4	1,133	1,134	5.8	12.5	420	425
May	46.8	40.9	1,138	1,122	6.5	10.5	427	425
June	44.5	45.8	1,128	1,115	7.2	7.5	427	353
2nd quarter	136.9	132.1	1,133	1,124	19.5	30.5	425	401
July	50.5	43.9	1,116	1,109	8.3	8.2	428	385
August	52.0	42.7	1,123	1,104	9.4	7.9	368	393
September	44.9	43.3	1,118	1,102	7.8	8.0	383	398
3rd quarter	147.4	129.9	1,119	1,105	25.5	24.1	393	392
October	48.4	44.5	1,130	1,107	8.6	7.7	403	392
November	46.5	43.1	1,120	1,067	9.6	8.3	406	364
December	53.6	47.4	1,121	1,117	11.0	10.3	420	358
4th quarter	148.5	135.0	1,124	1,097	29.2	26.3	410	371
Annual	570.7	524.1	1,121	1,114	93.3	112.2	410	399
	Hogs				Sheep			
January	367.8	310.0	238	242	1.3	1.4	106	99
February	319.4	265.7	237	244	0.9	1.0	114	103
March	348.7	275.4	237	242	3.4	3.7	108	101
1st quarter	1,035.9	851.1	237	243	5.5	6.1	109	101
April	350.4	298.1	237	239	5.8	3.3	96	95
May	360.4	298.2	238	242	1.6	1.9	106	85
June	321.5	274.9	237	241	2.0	2.2	96	94
2nd quarter	1,032.3	871.2	238	241	9.4	7.4	99	91
July	332.8	314.2	238	238	3.1	2.4	97	96
August	383.5	313.8	235	234	3.7	2.7	99	105
September	395.9	334.4	236	239	2.2	2.0	102	105
3rd quarter	1,112.2	962.4	236	237	9.0	7.1	99	102
October	433.3	376.1	238	240	1.3	1.5	101	104
November	302.7	294.3	244	245	1.3	1.4	104	96
December	335.7	304.9	240	245	1.5	1.5	101	95
4th quarter	1,071.7	975.3	241	243	4.1	4.4	102	98
Annual	4,252.2	3,659.9	238	241	28.1	24.9	101	98

1/Includes slaughter in federally inspected and in other slaughter plants, but excludes animals slaughtered on farms. Total may not add due to rounding.

MINK: FEMALES BRED AND MINK PRODUCTION, OHIO, 1981-86 1/

Year	Standard	Pastel	Sapphire	Pearl	Violet-type	Demi-buff 2/	Misc. Unclassified	Total	Number of ranches
	Thousand females bred 1/								
1981	17.1	8.9	0.9	3.7	1.7	5.5	4.3	42.1	
1982	-	-	-	-	-	-	-	-	
1983	18.1	5.1	1.6	6.1	2.0	5.0	5.4	43.3	
1984	17.8	3.7	1.9	6.2	2.3	3.5	4.3	39.7	
1985	18.0	4.0	2.8	3.7	1.3	2.9	6.5	39.2	
1986	19.4	1.9	0.9	0.3	1.1	3.9	5.3	32.8	
	Thousand pelts produced 3/								
1981	-	-	-	-	-	-	-	-	-
1982	51.0	23.6	3.8	13.9	4.3	22.6	17.8	137.0	50
1983	51.7	22.0	3.5	23.0	5.5	19.0	27.4	152.1	43
1984	57.6	13.1	7.8	21.3	6.6	18.6	18.8	143.8	43
1985	56.5	15.8	9.0	9.6	3.7	23.1	19.5	137.2	36

1/Mink production estimates temporarily discontinued in 1982. 2/This color class includes females bred to produce demi-buff, dark brown, violet, pastel, standard and pearl crosses and others. 3/1981 not available.

CHICKENS: INVENTORY BY CLASSES, OHIO AND UNITED STATES, DECEMBER 1, 1984-86

	Ohio			United States		
	1984	1985	1986	1984	1985	1986
			Thousands			
Hens 1 year and older	3,200	4,800	6,150	119,243	130,623	124,840
Pullets of laying age	11,000	10,400	9,300	166,605	149,146	155,300
Pullets not of laying age, over 3 months old	2,500	1,720	1,950	39,013	37,649	39,575
Pullets under 3 months old	2,400	2,200	2,900	42,703	44,512	41,746
Other chickens	100	80	100	6,444	6,618	7,220
Total 1/	19,200	19,200	20,400	374,008	368,548	368,681
All chickens, value per head 2/	1.40	1.35	1.45	2.02	1.90	1.87
Total value 1/	26,880	25,920	29,580	754,312	700,150	690,165

1/Excludes commercial broilers. 2/Dollars per head.

CHICKENS: INVENTORY, DISPOSITION, INCOME AND NUMBER OF FARMS 1/, OHIO, 1985-86

	Ohio		United States	
	1985	1986	1985	1986
		Thousands		
Lost 2/	2,600	2,000	37,502	35,820
Sold	11,000	11,900	220,395	216,938
All chickens current December 1	19,200	20,400	368,548	368,681
Pounds sold	44,000	44,030	1,029,146	1,022,566
Price per pound (cents)	19.0	12.0	14.8	12.5
Value of sales (dollars)	8,360	5,284	152,175	127,853
Cash receipts (dollars)	8,360	5,284	152,175	127,853
Number of chicken farms	11,000	-	-	-

1/Data cover both farm and commercial operations, but exclude commercial broilers for the 12 month period, Oct 1, previous year through Nov 30. 2/ Includes death and other losses during the 12 month period.

AVERAGE NUMBER OF LAYERS ON HAND AND EGGS PRODUCED, OHIO 1985-86

Month	Layers		Eggs per 100 layers		Eggs produced	
	1985	1986	1985	1986	1985	1986
	Thousands		Number		Millions	
December 1/	14,195	15,090	2,142	2,180	304	329
January	14,340	15,160	2,155	2,157	309	327
February	14,175	15,380	1,947	1,925	276	296
March	13,955	15,160	2,157	2,104	301	319
April	14,125	14,875	2,081	2,017	294	300
May	14,130	14,805	2,180	2,128	308	315
June	14,080	14,680	2,124	2,119	299	311
July	14,050	14,683	2,157	2,179	303	320
August	13,960	14,883	2,120	2,197	296	327
September	14,115	15,245	2,040	2,145	288	327
October	14,500	15,730	2,097	2,238	304	352
November	14,945	15,710	2,074	2,196	310	345
Total	14,214 2/	15,114 2/	253 3/	256 3/	3,592	3,868

1/December preceding year. 2/Average per year. 3/Total egg production divided by average number of layers on hand.

EGGS: PRODUCTION, DISPOSITION AND INCOME, OHIO AND UNITED STATES, 1985-86

	Ohio		United States	
	1985	1986	1985	1986
Eggs produced (million eggs)	3,592	3,868	68,407	68,514
Price per dozen (cents)	42.0	49.0	57.1	61.6
Value of production (1,000 dollars)	125,720	157,943	3,252,519	3,515,228

CHICKENS: NUMBER OF OPERATIONS WITH HENS AND PULLETS OF LAYING AGE AND PERCENT, OHIO, DECEMBER 1, 1985-86

	Hens and pullets of laying age											
	3,000-9,999		10,000-19,999		20,000-49,999		50,000-99,999		100,000+		Total 3,000+	
	1985	1986	1985	1986	1985	1986	1985	1986	1985	1986	1985	1986
Operations 1/	60	34	26	20	31	25	16	23	24	22	157	124
Pct. of HPLA	2	1	2	2	6	4	9	9	77	81	96	97

1/Independent operations and contractors.

BROILERS: PRODUCTION AND GROSS INCOME, OHIO AND UNITED STATES, 1985-1986 1/

	Ohio		United States 2/	
	1985	1986	1985	1986
Number produced (thousand head)	9,000	9,900	4,478,749	4,646,312
Pounds produced (thousand pounds)	37,800	42,570	18,850,790	19,651,075
Price per pound 3/ (cents)	25.5	34.0	30.1	34.5
Value of production (thousand dollars)	9,639	14,474	5,680,188	6,780,124

1/Broiler production including other meat-type breeds. 2/Excludes States producing less than 500,000 birds. 3/ Live weight equivalent price.

TURKEYS: PRODUCTION AND GROSS INCOME, OHIO AND UNITED STATES, 1985-86

	Ohio		United States	
	1985	1986	1985	1986
Heavy and light breeds raised 1/ (thousand head)	2,800	3,100	185,352	206,751
Pounds produced 2/ (thousand pounds)	71,120	78,120	3,702,194	4,141,727
Price per pound 3/ (cents)	48.0	47.0	49.1	47.1
Value of production (thousand dollars)	34,138	36,716	1,818,626	1,951,570

1/Based on turkeys hatched September 1, previous year through August 31, current year excludes young turkeys lost. 2/ Includes home consumption. 3/Live weight equivalent price.

1986 PRICES AND ECONOMIC DATA

AVERAGE PRICES: SELECTED COMMODITIES, OHIO, 1985-86 1/

Commodity	Unit	1985	1986	Commodity	Unit	1985	1986
		Dollars				Dollars	
Corn for grain	Bu.	2.33	1.45	Cattle	Cwt.	50.40	50.00
Soybeans	Bu.	5.10	4.75	Cows	Cwt.	36.60	35.30
Wheat	Bu.	3.00	2.40	Steers & heifers	Cwt.	54.40	54.10
Oats	Bu.	1.05	1.15	Calves	Cwt.	55.20	56.30
All hay	Ton	55.00	64.00	Sheep	Cwt.	34.90	37.30
Rye	Bu.	3.00	2.50	Lambs	Cwt.	66.90	68.00
Tobacco - all	Lb.	1.519	1.539	Wool	Lb.	.450	.460
Burley (31)	Lb.	1.590	1.564	Farm chickens	Lb.	.190	.120
Other (42-44)	Lb.	.870	.890	Commercial broilers 4/	Lb.	.255	.340
All potatoes	Cwt.	4.80	5.90	Turkeys	Lb.	.480	.470
Sugar beets	Ton	27.90	2/	Eggs, all	Doz.	.420	.490
Apples	Lb.	.144	.176	Milk, wholesale, all	Cwt.	12.80	12.50
Peaches	Lb.	3/	.290	Milk eligible for fluid market	Cwt.	12.90	12.60
Grapes	Ton	135.00	220.00	Milk, mfg. grade	Cwt.	11.60	11.60
Hogs	Cwt.	44.40	49.50	Milk cows 5/	Head	810.00	825.00
Sows	Cwt.	38.20	42.10				
Barrows & gilts	Cwt.	44.80	50.00				

1/Crops, season average price for 1985 and marketing year average price for 1986; chickens and hogs, December-November season average price; other items, annual average price. 2/Not available. 3/No significant production. 4/Live weight equivalent price. 5/For milk herd replacements.

INDEXES OF PRICES RECEIVED BY FARMERS, OHIO, CONSUMER PRICE INDEX, AND PRODUCER PRICE INDEX, U.S., 1985-86

Month	All farm products		Lvstk. & lvstk. products 2/		All crops 1/		Consumer (CPI)		Producer (wholesale)	
	1985	1986	1985	1986	1985	1986	1985	1986	1985	1986
	1977=100						1967=100			
January	121	112	132	126	111	100	316	328	310	309
February	122	110	132	122	112	99	317	328	309	304
March	120	110	128	122	113	99	319	326	309	300
April	119	108	125	118	114	99	320	325	309	298
May	116	111	122	123	110	101	321	326	310	299
June	116	112	123	126	109	98	322	328	310	299
July	113	112	121	133	105	93	323	328	309	298
August	108	109	118	136	99	86	324	329	307	297
September	105	109	117	137	94	82	325	330	306	298
October	107	105	123	131	92	80	326	331	308	298
November	110	108	124	134	97	84	327	331	310	299
December	112	108	126	132	98	85	327	331	310	298

1/Includes indexes for major crops, fruit, potatoes and vegetables. 2/ Includes wool price index.

PRICES PAID FOR FEED, BY MONTHS, OHIO, 1985-87

Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
Hog feed, 14-18% protein, per cwt.												
1985	10.20	10.10	9.80	9.30	9.60	9.40	9.80	9.30	9.30	9.30	9.70	9.40
1986 1/	9.80	9.40		9.12			8.90			8.80		
1987	8.50											
Hog concentrate, 38-42% protein, per cwt.												
1985	13.90	13.70	13.40	12.90	12.70	12.30	12.40	12.50	12.80	12.90	13.70	13.30
1986 1/	13.80	14.00		13.00			13.20			13.20		
1987	13.30											
Beef cattle concentrate, 32-36% protein, per cwt.												
1985	12.60	12.40	12.40	12.00	11.50	11.60	11.80	11.90	12.00	12.50	13.00	12.90
1986 1/	13.50	13.00		11.80			11.80			12.20		
1987	12.10											
Dairy feed, 16% protein, per ton												
1985	175	174	172	167	172	170	170	168	167	167	172	175
1986 1/	181	176		170			161			155		
1987	157											
Dairy feed, 32% protein, per ton												
1985	230	230	230	220	230	220	225	220	220	225	240	235
1986 1/	240	240		248			245			260		
1987	255											
Laying feed, per ton												
1985	173	173	170	170	169	175	177	171	164	155	165	160
1986 1/	170	173		186			187			183		
1987	176											
Turkey grower, per ton												
1985	215	215	205	205	205	215	220	205	200	210	215	196
1986 1/	200	200		209			215			205		
1987	205											

FEED PRICE RATIOS, BY MONTHS, OHIO, 1985-87

Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
Egg-feed ratio 2/												
1985	4.5	4.6	5.4	4.9	4.4	4.5	4.6	4.8	5.1	6.1	6.1	6.5
1986 1/	5.9	5.4		6.5			6.8			7.0		
1987	7.2											
Hog-corn ratio 3/												
1985	18.6	18.0	16.0	15.1	15.3	17.0	17.3	17.7	18.5	21.2	20.0	19.5
1986	18.7	18.3	17.8	17.4	18.8	22.0	28.3	35.3	39.5	38.0	35.5	33.0
1987	32.3											
Milk-feed ratio 4/												
1985	1.60	1.61	1.58	1.58	1.48	1.44	1.44	1.43	1.45	1.49	1.47	1.45
1986 1/	1.40	1.43		1.46			1.50			1.72		
1987	1.74											

1/ After February 1986 prices are for the Corn Belt Region (Ohio, Illinois, Indiana, Iowa, Missouri) on a quarterly basis. 2/ Pounds of feed equal in value to 1 dozen eggs. 3/ Bushels of corn equal in value to 100 pounds of hog, live weight. 4/ Pounds of 16% dairy feed equal in value to 1 pound of whole milk.

PRICES RECEIVED BY FARMERS: SELECTED COMMODITIES, BY MONTHS, OHIO, 1985-86

Commodity and year	Unit	Jan.	Feb.	Mar.	Apr.	May	Jun.
		Dollars					
CORN							
1985	Bu.	2.61	2.67	2.70	2.73	2.66	2.67
1986		2.37	2.36	2.29	2.29	2.41	2.40
SOYBEANS							
1985	Bu.	5.90	5.81	5.89	5.94	5.70	5.69
1986		5.27	5.29	5.27	5.27	5.33	5.30
WHEAT							
1985	Bu.	3.40	3.39	3.46	3.39	3.25	3.11
1986		3.19	3.26	3.40	3.45	3.41	2.46
OATS							
1985	Bu.	2.20	2.16	2.10	2.10	1.98	1.85
1986		1.13	1.18	1.11	1.01	1.02	1.00
ALL HAY							
1985	Ton	69.00	76.00	70.00	73.00	66.00	64.00
1986		62.00	60.00	55.00	55.00	51.00	47.00
ALFALFA HAY							
1985	Ton	79.00	80.00	77.00	77.00	70.00	70.00
1986		68.00	65.00	63.00	60.00	55.00	50.00
OTHER HAY							
1985	Ton	58.00	65.00	62.00	62.00	55.00	50.00
1986		60.00	43.00	40.00	40.00	40.00	36.00
ALL POTATOES							
1985	Cwt.	6.15	6.80	6.85	7.00	7.00	-
1986		5.85	4.50	5.60	5.85	7.00	-
HOGS							
1985	Cwt.	48.60	48.10	43.30	41.10	41.60	45.50
1986		44.40	43.10	40.70	39.90	45.40	52.70
SOWS							
1985	Cwt.	41.70	42.90	40.10	39.70	36.30	36.70
1986		35.90	37.80	37.00	36.70	38.40	43.60
BARROWS & GILTS							
1985	Cwt.	49.10	48.60	43.50	41.20	42.00	46.00
1986		44.90	43.30	41.00	40.10	45.80	53.30
CATTLE, ALL BEEF							
1985	Cwt.	52.60	52.10	52.00	52.50	52.00	52.10
1986		51.60	48.50	48.10	47.00	48.70	49.50
COWS							
1985	Cwt.	37.70	40.10	40.00	39.90	40.00	38.70
1986		34.80	35.50	35.30	33.60	36.00	37.10
STEERS & HEIFERS							
1985	Cwt.	58.80	56.90	56.50	55.80	54.70	54.60
1986		58.00	52.70	51.70	50.20	51.50	52.00
CALVES							
1985	Cwt.	52.50	55.80	55.60	57.20	60.40	60.20
1986		52.30	57.60	58.10	54 60	58.30	57.50
SHEEP							
1985	Cwt.	29.30	31.00	24.60	21.50	32.90	31.30
1986		37.60	37.90	29.10	26.00	31.70	39.90
LAMBS							
1985	Cwt.	65.60	67.40	70.70	75.30	70.90	66.10
1986		65.50	69.20	74.00	76.80	78.50	72.80
WOOL							
1985	Lb.	.480	.470	.430	.400	.440	.470
1986		.380	.400	.400	.400	.430	.430
EGGS							
1985	Doz.	.390	.400	.460	.420	.360	.380
1986		.500	.470	.600	.480	.450	.380
ALL MILK							
1985	Cwt.	14.00	14.00	13.60	13.20	12.70	12.20
1986		12.70	12.60	12.40	12.10	12.10	11.90
MILK, FLUID MARKET							
1985	Cwt.	14.20	14.10	13.70	13.30	12.80	12.30
1986		12.80	12.70	12.50	12.20	12.20	12.00
MILK, MFG. GRADE							
1985	Cwt.	12.60	12.70	12.20	12.00	11.70	11.00
1986		12.20	12.10	11.80	11.70	11.70	11.20
MILK COWS 1/							
1985	Head	820.00	-	-	820.00	-	-
1986		800.00	-	-	810.00	-	-

1/For replacement dairy stock.

PRICES RECEIVED BY FARMERS: SELECTED COMMODITIES, BY MONTHS, OHIO, 1985-86 (cont-d)

Commodity and year	Unit	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
		Dollars					
CORN							
1985	Bu.	2.64	2.45	2.18	2.06	2.26	2.37
1986		2.09	1.68	1.47	1.38	1.48	1.52
SOYBEANS							
1985	Bu.	5.47	5.15	4.99	4.87	4.95	5.11
1986		5.30	5.09	4.84	4.63	4.78	4.78
WHEAT							
1985	Bu.	2.97	2.78	2.63	2.74	3.06	3.25
1986		2.34	2.20	2.24	2.49	2.61	2.67
OATS							
1985	Bu.	1.34	1.04	0.99	0.89	1.12	1.07
1986		0.79	0.72	0.80	0.93	1.31	1.47
ALL HAY							
1985	Ton	52.00	50.00	53.00	55.00	58.00	62.00
1986		47.00	51.00	56.00	61.00	68.00	73.00
ALFALFA HAY							
1985	Ton	63.00	60.00	60.00	65.00	70.00	70.00
1986		50.00	55.00	60.00	65.00	70.00	75.00
OTHER HAY							
1985	Ton	40.00	40.00	45.00	45.00	45.00	50.00
1986		36.00	40.00	45.00	50.00	55.00	60.00
ALL POTATOES							
1985	Cwt.	3.65	3.65	4.40	4.30	5.50	4.80
1986		6.60	4.90	4.95	5.90	6.00	6.50
HOGS							
1985	Cwt.	45.80	43.30	40.40	43.70	44.20	46.20
1986		59.20	62.00	58.00	52.50	52.60	50.30
SOWS							
1985	Cwt.	36.80	35.10	33.60	35.80	37.00	36.70
1986		47.30	52.60	52.90	48.20	46.70	42.20
BARROWS & GILTS							
1985	Cwt.	46.40	43.80	40.80	44.10	44.70	46.90
1986		60.00	62.60	58.20	52.70	52.80	51.00
CATTLE, ALL BEEF							
1985	Cwt.	47.90	47.60	48.20	50.80	48.90	49.70
1986		50.60	51.30	53.40	50.70	50.50	49.10
COWS							
1985	Cwt.	36.60	35.10	33.40	32.50	33.00	33.70
1986		35.40	35.10	36.00	35.40	34.60	34.80
STEERS & HEIFERS							
1985	Cwt.	50.30	50.40	51.30	55.00	55.70	56.40
1986		54.30	55.40	57.40	55.40	56.10	55.60
CALVES							
1985	Cwt.	54.70	55.20	53.30	54.70	53.60	50.40
1986		54.90	55.80	59.30	55.60	54.70	56.80
SHEEP							
1985	Cwt.	45.60	45.00	40.50	31.90	40.50	33.70
1986		39.00	42.10	47.20	33.50	44.00	38.10
LAMBS							
1985	Cwt.	66.90	64.30	65.90	64.80	67.00	64.50
1986		65.80	64.60	64.60	60.30	62.80	70.30
WOOL							
1985	Lb.	.440	.410	.420	.450	.430	.460
1986		.430	.430	.450	.450	.420	.420
EGGS							
1985	Doz.	.400	.400	.410	.470	.500	.520
1986		.450	.470	.520	.460	.510	.540
ALL MILK							
1985	Cwt.	12.20	12.00	12.10	12.40	12.50	12.70
1986		11.90	12.10	12.50	12.80	13.20	13.40
MILK, FLUID MARKET							
1985	Cwt.	12.30	12.10	12.20	12.50	12.70	12.80
1986		12.00	12.20	12.60	13.00	13.40	13.60
MILK, MFG. GRADE							
1985	Cwt.	11.20	11.00	11.30	11.30	11.50	11.50
1986		11.10	11.00	11.40	11.60	11.80	11.90
MILK COWS							
1985	Head	820.00	-	-	780.00	-	-
1986		840.00	-	-	840.00	-	-

BALANCE SHEET OF THE FARMING SECTOR, OHIO AND UNITED STATES, DECEMBER 31, 1984-85 1/

Item	Ohio		United States	
	1984	1985 2/	1984	1985 2/
		Thousands		
Farms	90	89	2,328	2,275
Assets	Million dollars		Million dollars	
Total farm assets	26,327.4	23,938.8	955,784.4	866,794.3
Real estate 3/	17,790.8	16,005.4	693,732.1	607,460.4
Livestock and poultry 4/	1,007.6	985.2	49,646.7	45,939.3
Machinery and motor vehicles 5/	3,698.9	3,623.2	99,380.0	97,581.0
Crops 6/	1,239.1	747.7	33,777.6	37,085.6
Household Equipment & Furnishings	755.0	761.4	26,116.0	26,075.0
Financial assets	1,836.0	1,815.9	53,132.0	52,653.0
Claims				
Total farm debt	5,128.6	4,918.9	212,330.0	204,939.3
Real estate debt 7/	3,060.4	2,754.4	111,645.3	105,441.3
Nonreal estate debt 8/	1,941.3	1,687.4	92,049.7	82,570.1
CCC loans 9/	127.0	477.0	8,635.0	16,928.0
Equity	21,198.8	19,019.9	743,454.4	661,855.0
Ratios		Ratios		
Equity/assets	80.5	79.5	77.8	76.4
Debt/equity	24.2	25.9	28.6	31.0
Debt/assets, total	19.5	20.5	22.2	23.6
Debt/assets, real estate	17.2	17.2	16.1	17.4
Debt/assets, nonreal estate and CCC	24.2	27.3	38.4	38.4
Net Farm Income/debt 10/	17.9	15.5	15.4	14.9

1/Data are for farms with sales of $1,000 or more annually. 2/Preliminary. 3/Excludes value of operator dwelling. 4/Excludes horses, mules, and broilers. 5/Includes only farm share value for trucks and autos. 6/All crops held on farms, including crops under CCC and crops held off farms by farm operators. 7/Excludes debt on operator dwellings. 8/Excludes debt for nonfarm purposes. 9/Commodity Credit Corporation (CCC) loans secured by crops, and storage and drying facilities owned by farmers. 10/Debt in this ratio is an average for the year.

Source: Economic Indicators of the Farm Sector, Income and Balance Sheet Statistics, 1985.

PRICES PAID FOR FUELS: BY MONTHS, OHIO, 1985-87

	Jan. 1/	Feb.	Mar.	Apr. 2/	May	Jun.	Jul. 2/	Aug.	Sep.	Oct. 2/	Nov.	Dec.
					Gasoline, service station, (unleaded), per gallon							
1985 1/	1.14	1.09	.990	1.21	1.23	1.20	1.22	1.20	1.19	1.15	1.17	1.19
1986 2/	1.19			.84			.85			.80		
1987 2/	.85											
					Gasoline, bulk delivery, (leaded regular), per gallon							
1985 1/	1.09	1.07	1.10	1.15	1.16	1.17	1.18	1.17	1.15	1.13	1.16	1.16
1986 2/	1.14			.84			.84			.81		
1987 2/	.87											
					Diesel fuel, per gallon							
1985 1/	.961	.990	.990	.990	1.00	.980	.950	.950	.980	1.00	1.06	1.08
1986 2/	1.00			.728			.604			.640		
1987 2/	.69											
					L.P. gas, bulk delivery, per gallon (United States)							
1985 1/	.742	.739	.735	.733	.730	.725	.719	.703	.699	.705	.722	.764
1986 2/	.774			-			-			.590		
1987 2/	.590											

1/ State average.
2/ Average for Corn Belt which includes, Ohio, Indiana, Iowa , Missouri and Illinois.

FARM INCOME STATEMENT OF OHIO AND U.S. AGRICULTURE, 1984 and 1985

Item	Ohio		United States 1/	
	1984	1985 2/	1984	1985 2/
Farm income		Million dollars		
Gross farm income:				
Cash receipts from farm marketings	3,614	3,941	142,153	142,103
Government payments to farm operators and landlords	232	150	8,430	7,704
Home consumption of farm products	44	31	1,064	929
Rental value of farm dwellings	424	310	12,202	10,588
Other farm income 3/	46	56	4,278	6,360
Total realized gross farm income	4,360	4,487	168,127	167,684
Production costs:				
Feed bought	437	426	19,850	19,588
Livestock bought, except horses and mules	59	75	9,498	8,991
Seed bought 4/	152	149	3,448	3,369
Fertilizer and lime bought	307	289	7,429	7,259
Repairs and operation of capital items 5/	292	279	7,850	7,450
Wages for hired labor (cash and perquisites) 6/	179	185	9,839	10,347
Miscellaneous 7/	954	903	38,157	36,314
Total current farm operating expenses	2,380	2,306	96,070	93,318
Depreciation and other consumption of farm capital 8/	819	754	23,020	21,101
Taxes on farm property	135	131	4,384	4,423
Interest on mortgage debt	320	261	10,733	9,878
Net rent and government payments to nonoperator landlords 9/	282	289	7,504	7,387
Total production expenses	3,937	3,740	141,712	136,108
Net farm income before inventory adjustment	423	747	26,416	31,577
Net change in farm inventories	493	16	6,272	-1,118
Total net farm income after inventory adjustment	916	763	32,687	30,459
Number of farms (thousand)	90	89	2,328	2,275
Total gross farm income per farm (dollars)	48,444	50,416	72,220	73,707
Total net farm income per farm (dollars) 10/	10,178	8,573	14,041	13,389
		Percent		
Net farm income as percent of gross 10/	21.0	17.0	19.4	18.2
Net farm income as percent of previous year 10/	11/	83.3	218.0	93.2

1/Includes Alaska and Hawaii. 2/Preliminary. 3/Machine hire and custom work and recreational income. 4/Includes bulbs, plants, and trees. 5/Repairs and maintenance of buildings, repairs and operation of motor vehicles and other machinery, and petroleum fuel and oil used in the farm business. 6/Includes cash wages, perquisites, and social security taxes paid by employers. 7/Includes binding, Federal Crop Insurance, containers, dairy supplies, electricity, greenhouse and nursery products, grazing fees, harness and saddlery, net insurance premiums (fire, wind, and crop hail), irrigation, livestock marketing service (excluding feed and transportation), milk hauling, miscellaneous hardware (including blacksmithing), machine hire and custom work, miscellaneous livestock and poultry supplies, pesticides, small handtools, short-term interest, telephones (business share), veterinary services and medicines (plus insemination) and other miscellaneous. 8/Includes depreciation and accidental damage to farm buildings and depreciation of motor vehicles and other farm machinery and equipment. 9/After subtracting taxes, mortgage interest and other expenses paid by landlords. 10/Net farm income after inventory adjustment.11/ Can not calculate; previous year net farm income was negative.
Note: Columns may not add because of rounding.

Source: Economic Indicators of the Farm Sector: Income and Balance Sheet Statistics, 1985.

NONREAL ESTATE FARM DEBT OUTSTANDING (including operator households), OHIO DECEMBER 1, 1974-85

YEAR	DEBT OWED TO REPORTING INSTITUTIONS (excluding CCC)				DEBT OWED TO INDIVIDUALS AND OTHERS	TOTAL EXCLUDING CCC LOANS	PRICE SUPPORT & STORAGE LOAN	TOTAL INCLUDING CCC LOANS
	ALL OPERATING BANKS	PRODUCTION CREDIT ASSOC.	FEDERAL INTERMEDIATE CREDIT BANKS	FARMERS HOME ADMINISTRATION			MADE OR GUARANTEED BY CCC	
	MILLION DOLLARS							
1974	276	399	4	15	207	901	8	909
1975	315	476	2	16	248	1,058	9	1,067
1976	347	561	4	14	279	1,206	17	1,223
1977	410	666	6	15	325	1,421	71	1,492
1978	454	769	8	36	356	1,622	71	1,693
1979	482	871	9	61	403	1,825	60	1,885
1980	473	909	10	95	454	1,940	114	2,054
1981	504	979	11	114	491	2,099	138	2,237
1982	542	811	12	214	524	2,103	282	2,385
1983	591	650	13	236	508	1,997	135	2,132
1984	624	540	16	287	475	1,941	127	2,068
1985	**554**	**397**	**4**	**328**	**404**	**1,687**	**477**	**2,164**

REAL ESTATE DEBT OUTSTANDING (including operator household), OHIO DECEMBER 1, 1974- 1985

YEAR	FEDERAL LAND BANKS	FARMERS HOME ADMINISTRATION	LIFE INSURANCE COMPANIES	ALL OPERATING BANKS	INDIVIDUALS AND OTHERS	TOTAL
	MILLION DOLLARS					
1974	366	39	89	322	426	1,242
1975	453	42	90	330	461	1,375
1976	547	44	103	377	498	1,569
1977	660	48	135	432	557	1,832
1978	793	54	192	449	610	2,097
1979	953	102	252	457	710	2,474
1980	1,112	115	298	469	769	2,763
1981	1,313	142	310	463	809	3,037
1982	1,387	152	299	449	815	3,103
1983	1,371	176	294	459	823	3,123
1984	1,354	203	277	464	762	3,060
1985	**1,109**	**213**	**239**	**500**	**693**	**2,754**

Source: Economic Indicators of the Farm Sector, State Financial Summary, 1985

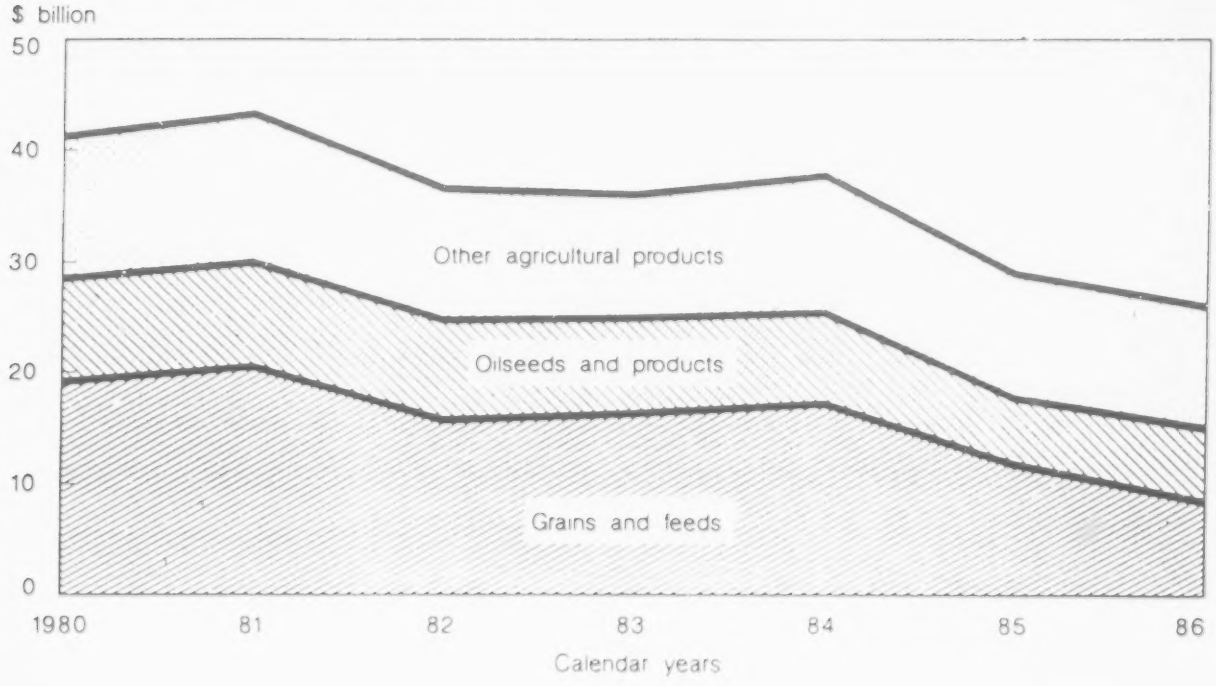
U.S. AGRICULTURAL EXPORTS

U.S. Agricultural Exports fell 10 percent in value in calendar year (CY) 1986 to $26 billion and 9 percent in volume to 108.7 million tons. Rising grain production in importing countries cut overseas demand and U.S. exports. The USSR accounted for the largest drop by cutting its purchases of U.S. grain 11.6 million tons. As world grain and oilseed stocks grew, prices fell, further reducing the value of U.S. agricultural exports. However, high-value exports generally performed better than bulk exports, possibly reflecting overseas response to the weaker dollar.

Bulk commodity prices weakened in CY 1986, with only a few exceptions. World prices for primary commodities, excluding oil, fell about 7 percent in the first 11 months of 1986. Food prices fell even more sharply.

The share of farm production used for exports fell to 14 percent in fiscal year 1986 (October 1985-September 1986), the lowest level in 14 years. Declining U.S. agricultural exports and record-high agricultural production in CY 1985 caused the decline. The domestic market was unable to compensate for this drop in demand, and farm prices consequently fell 10 percent.

Value of U.S. Agricultural Exports



VALUE OF EXPORT SHARES 1/ OF AGRICULTURAL COMMODITIES, OHIO AND U.S., FISCAL YEARS 1981-86

Year ended Sept 30	Wheat and products	Feed Grains and products 2/	Soybeans and products 3/	Tobacco unmfd	Fruits and preps	Vegetables and preps	Feeds and fodder	Seeds
				MILLION DOLLARS				
				OHIO				
1981	266.5	690.8	607.6	7.1	7.1	17.6	15.9	5.8
1982	243.4	317.1	420.4	8.9	4.8	17.1	15.1	6.0
1983	137.8	393.9	472.9	10.9	5.5	18.3	15.4	6.7
1984	142.5	467.8	484.3	9.2	3.2	22.2	16.5	6.5
1985	83.0	433.3	389.5	12.4	3.7	20.2	17.3	7.0
1986	**117.8**	**266.7**	**426.5**	**8.7**	**3.5**	**24.0**	**19.5**	**7.3**
				UNITED STATES				
1981	8,051.7	11,149.9	8,042.3	1,338.5	1,513.2	1,445.7	519.5	290.2
1982	7,675.1	7,685.1	8,429.9	1,486.5	1,394.1	1,442.1	600.7	299.1
1983	6,223.1	7,342.8	7,776.4	1,487.2	1,374.3	989.5	563.3	333.0
1984	6,783.2	9,076.0	7,548.1	1,432.7	1,270.2	998.5	550.0	325.9
1985	4,525.9	7,600.6	5,267.1	1,587.9	1,200.1	945.8	472.8	352.3
1986	**3,546.2**	**4,713.9**	**5,573.4**	**1,317.5**	**1,237.0**	**1,000.1**	**554.6**	**366.4**

VALUE OF EXPORT SHARES 1/ OF AGRICULTURAL COMMODITIES, OHIO AND U.S., FISCAL YEARS 1981-86 (continued)

Year	Live animals and meat ex poultry	Hides and skins 4/	Poultry and products	Fats oils and greases	Dairy products	Other 5/	Total
			MILLION DOLLARS				
			OHIO				
1981	30.5	13.6	12.4	13.9	8.3	33.6	1,730.7
1982	27.8	14.6	11.1	12.5	12.8	19.7	1,131.2
1983	24.9	15.8	9.4	11.1	11.5	23.5	1,157.5
1984	21.3	20.8	8.6	12.4	12.3	24.1	1,251.8
1985	19.9	19.7	8.9	10.2	11.3	22.6	1,059.1
1986	**22.4**	**21.7**	**11.1**	**7.8**	**12.0**	**25.7**	**974.7**
			UNITED STATES				
1981	1,180.0	1,002.0	765.2	756.2	237.7	7,488.0	43,780.1
1982	1,230.3	1,021.2	579.0	701.6	367.8	6,182.0	39,094.5
1983	1,187.8	997.5	451.1	593.2	348.9	5,101.4	34,769.5
1984	1,205.9	1,317.8	412.8	703.2	393.5	6,009.0	38,026.8
1985	1,160.9	1,324.6	392.8	607.9	413.5	5,348.6	31,200.8
1986	**1,356.7**	**1,455.5**	**455.3**	**476.5**	**429.6**	**3,842.0**	**26,324.7**

1/The export shares for Ohio were derived from the State's contribution to national output. They do not show actual State exports, but instead reflect the prorated stake in the national export total. 2/Includes corn, barley, oats, grain sorghum and other coarse grain products. 3/Soybeans, soybean meal, and soybean oil. 4/Distribution of furskins to the State prorated level includes mink pelts. 5/Other includes rice, sunflower seed and oil, peanuts and products, cotton and linters, cotton-seed and products and tree nuts which were listed separately for U.S. but which are not estimated for Ohio. Also includes other products estimated for Ohio and the U.S. but not listed above.

VALUE OF U.S. FOREIGN TRADE AND TRADE BALANCE, (AGRICULTURAL AND TOTAL) - OCTOBER-SEPTEMBER 1981-86

	Agriculture Trade					Total Trade		
Year	Agriculture Exports	Agriculture share of Total	Agriculture Imports	Agriculture share of total	Agriculture Trade balance	Total Exports 1/	Total Imports 2/	Total Trade balance
	Mil. Dollars	Percent	Mil. Dollars	Percent		Million Dollars		
1981	43,780	19	17,218	7	26,562	229,203	254,687	-25,484
1982	39,097	18	15,485	6	23,612	215,405	248,834	-33,429
1983	34,769	18	16,373	7	18,396	194,142	246,900	-52,758
1984	38,027	18	18,916	6	19,111	208,041	316,652	-108,611
1985	31,201	15	19,740	6	11,461	210,437	333,462	-123,025
1986	**26,324**	**13**	**20,875**	**6**	**5,449**	**202,938**	**363,730**	**-160,792**

1/ Domestic exports. 2/ Imports for consumption, customs value basis.
Source: Foreign Agricultural Trade Supplement of the United States. Fiscal Year 1986 Supplement.

OHIO DEPARTMENT OF AGRICULTURE
1986 ANNUAL REPORT

RICHARD F. CELESTE
GOVERNOR

STEVEN D. MAURER
DIRECTOR

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AN EQUAL OPPORTUNITY EMPLOYER

DIVISION OF ADMINISTRATION

Dick Tootle, Assistant Director
Gloria Williams, Deputy Director
Barb Valentine, Director's Administrative Assistant

The Division of Administration provides support for the various operating divisions of the Ohio Department of Agriculture (ODA). It performs the basic functions of administration including: fiscal, personnel, public relations, labor relations, legal services, data processing, and departmental management. The Administration Division is also responsible for the operation and maintenance of the Ohio Department of Agriculture's laboratory complex, at 8995 East Main Street, Reynoldsburg.

EMPLOYEES BY DIVISION

(as of January 31, 1987)

701	Administration	49
702	Animal Industry	56
703	Foods, Dairies & Drugs	42
704	Markets	46
705	Plant Industry	65
706	Weights & Measure	15
707	Meat Inspection	200
708	Fairs & Amusement Ride Safety	15
709	Grain Warehouse	16
*TOTAL EMPLOYEES		504

RULE CHANGES IN 1986

Tony Logan, Chief Legal Counsel
Victoria Ullmann, Staff Attorney

The Legal Section promulgated two important sets of rules in 1986 relative to regulating Gypsy Moths and fair games.

The Gypsy Moth insect causes great damage by defoliating trees. A single Gypsy Moth caterpillar can eat one square foot of leaf surface every 24 hours. This insect has been moving west from New York and Pennsylvania into Ohio. The rule work changes to Chapter 901:5 of the Ohio Administrative Code (OAC) provides procedures for quarantine of infested areas, inspection of certain household articles and destruction of this pest.

ODA also promulgated revised rules on games to be played at county and independent fairs, and the state fair. These sections were moved from 901:7 to 901:9 of the ORC. The format was changed to provide an easier reference by making a comprehensive rule for all similar games. This reduced the number of game rules from 69 to 16. The new format assists in enforcement by the Department and compliance by the operators.

STATEMENT OF EXPENDITURES FOR FISCAL YEAR 1986

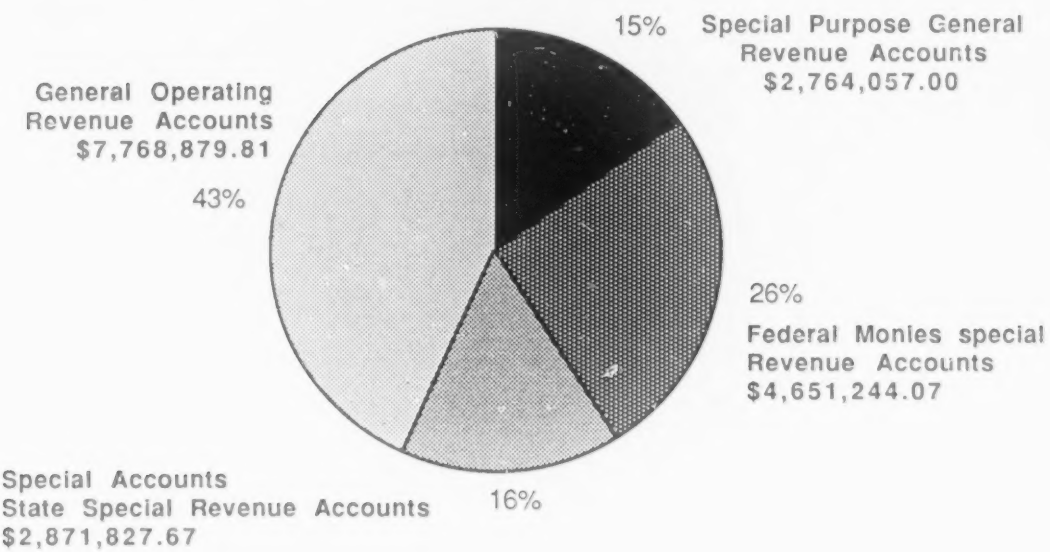
Chris Krause, Fiscal Officer

OPERATING EXPENSES

FUND 11		GENERAL REVENUE FUND
503	Swine and Cattle Breeder Awards	$ 5,300.00
401	Aujeskys Disease	158,912.00
405	Rodent Control	30,166.00
499	Meat Inspection (State Match)	2,353,663.00
501	County Agricultural Societies	146,395.00
411	International Trade	60,332.00
413	Gypsy Moth Prevention	9,289.00
	TOTAL SPECIAL PURPOSE ITEMS	2,764,057.00
	GRAND TOTAL EXPENDITURES ALL FUNDS	18,056,008.55

FUND 11		GENERAL REVENUE FUND
701	Administration	$ 2,384,020.68
702	Animal Industry	1,523,100.97
703	Foods, Dairies & Drugs	993,174.11
704	Markets	162,021.46
705	Plant Industry	1,742,842.54
706	Weights & Measures	487,743.58
708	Fairs & Amusement Ride Safety	334,573.46
709	Grain Warehouse	141,403.01
	TOTAL OPERATING EXPENDITURES	$ 7,768,879.81

*Includes salary, fringe benefits, maintenance and equipment



REYNOLDSBURG LABORATORY

Robin Anderson-Burton, Administrative Assistant/Lab Coordinator

The Laboratory Coordination office is responsible for supervision of the physical condition and needs of the 15-building complex located in Reynoldsburg. The new Animal Diagnostic Laboratory, a major capital improvement project, has been completed. Roofs have also been replaced on the Animal Disease building, Consumer Analytical building and the groundskeeper's houses. Plans are currently in the making to repair fume hoods in two other laboratories and replace yet another roof on the Plant Pest building.

Numerous tours have been conducted through the Reynoldsburg Laboratory—groups ranged from elementary school children to college students. In total, there were 40 tours through the complex in 1986.

The fleet outlook for 1986 began with 229 cars and trucks. Through the year, the Department was forced to salvage 37 vehicles due to high mileage and excessive repair costs. At the end of 1986, the Department's fleet consisted of 192 vehicles. Employees were involved in 28 automobile accidents—of these 28 accidents, only 9 were the fault of state drivers. These 9 accidents reflected a dramatic decrease from a time when as many as 15 of 24 accidents were the fault of state drivers.

PUBLIC INFORMATION OFFICE

Alice Walters, Chief

The Public Information Office serves as a link between ODA's divisions, the consuming public, and the agricultural constituency. Information is channeled through this office for use by the media, legislators, and other interested parties. In addition, special projects and programs are conducted to better inform and educate the public about agriculture.

Most recently, a consumer and information center was opened in the Cleveland area to assist urban consumers.

Activities focus upon three areas: agricultural protection and regulation; promotion, and consumer education.

1986 OVERVIEW

- The Ohio nursery industry successfully established a marketing program after producers passed a referendum which allowed a percent of gross nursery sales to be used for marketing and research.
- Soybean producers conducted a producer referendum in hopes of establishing a soybean marketing program, it was defeated by only six votes.
- The sale of tylenol capsules was banned in Ohio by the Department following poisonings in other states.
- An emergency proclamation was issued by the Governor to stop the importation of live poultry or hatching eggs originating from states having the avian influenza virus.
- Several months later, avian influenza was found in a flock of ducks, geese, and game birds in Fulton County. They were destroyed by the Department.

- Dale L. Locker resigned on February 21, to campaign for the Ohio House of Representatives. On March 25, Governor Celeste appointed Assistant Director Steven D. Maurer, Botkins, as Director of the Department following his service as interim director. Dick Tootle, Circleville, was appointed to be Assistant Director. Former Director of Agriculture, John Stackhouse passed away on September 19. He was director for 16 years—the longest in Ohio history.

- Ohio's first lady, Dagmar Celeste, toured a cattle farm operation owned and operated by an Ohio farm woman in an effort to focus upon women's changing roles in agriculture.

- Grain producers doing business with four elevators were notified of their reimbursement from the ODA Indemnity Fund following elevator insolvencies.

- Ohio's farm financial conditions were released as a result of efforts between the Agricultural Statistical Service and ODA. Later in the year, the Department held seminars entitled "Farm Financial Management In Time of Stress" at five different locations in Ohio.

- Fair dates for Ohio's 96 county and independent fairs and the Ohio State Fair were approved and released for 1987.

Mid-Western Governors' Conference · Agriculture was the major topic of discussion at the Mid-Western Governors' Conference held in Columbus, June 16-17. The special agricultural session was hosted by the Department of Agriculture and the College of Agriculture, Ohio State University (OSU).

During the Conference, Governor Celeste announced three new programs to deal with problems faced by Ohio farmers:

1. The expansion of the Ohio Farm Financial Management Program. A $500,000 grant from ODA's Rural Rehabilitation Fund is being used for farm visits by finance experts to help farmers with new financing techniques using a computer generated program.

2. An Ohio agricultural marketing campaign— a joint effort between the Department of Agriculture and Department of Development to help farmers find new markets for their products.

3. The creation of the Center for Agriculture Innovation with the commitment of $1 million in State money. There will be a $2 million matching commitment from the private sector. The center will be located at OSU and will find ways to preserve and sustain diversified family farm agriculture in Ohio.

Hay Relief Effort · Ohio had hay fever of the right kind during the summer months as the Department coordinated a relief effort for the drought-stricken southern states. The Ohio Cooperative Extension Services, community groups, farmers, and concerned citizens all participated in relief efforts which resulted in over 16 million tons of hay and $16,000 being donated.

Taiwan Trade Mission · A Taiwanese Procurement Mission purchased over $14.9 million worth of Ohio corn and soybeans during a buying mission in Ohio. Governor Richard Celeste and the Ohio Department of Agriculture hosted the delegation on their 12th buying mission to Ohio. In addition, the first international livestock shipment out of Ohio had its beginnings at Airborne Express, Wilmington, where 228 holstein heifers were quarantined—destination, Taiwan.

State Fair · The Department's new agricultural center opened at the Ohio State Fair on July 31. The exhibit features antique farm equipment, baby animals, the Junior

Fair grand champion livestock and exhibits about agriculture from Ohio's commodity groups and various ODA divisions.

Free grape juice was given away by the Ohio Grape Industries Program. The building received much more traffic than ODA exhibits in years past and plans are underway for the 1987 exhibit.

Displays and Exhibits - The Department participated in over 12 trade shows and exhibits in 1986. Various commodity groups donated space for division displays at their annual meeting and several major shows. The Department also unveiled its new pavillion concept at the U.S. International Food Show in San Francisco, California.

The Department also has a "Farm in the City" display that is taken to various cities in Ohio so that city people can experience a part of farm life. The live farm animals in this exhibit help to teach children about agriculture.

Coloring books are also given away to assist in the educational process. To date over 12,500 of these coloring books have been given away to children and to elementary school teachers to better promote agriculture.

The largest "Farm in the City" was held in Cleveland in conjunction with the Central Market which arranges special promotions and giveaways.

Speaker's Bureau - Besides the numerous speaking engagements the Director is committed to each year, the Department also has a Speakers Bureau from which speakers are scheduled upon request. Groups that speakers are provided for include the Rotary, Kiwanis, various associations, specialty organizations and other civic groups. Speakers are provided on a variety of topics both consumer and agriculturally oriented.

URBAN CONSUMER AFFAIRS

The Urban Consumer Affairs office located in Cleveland has continued to provide assistance to social service organizations through seminars, speaking engagements, health fairs, and other community programs.

In 1986 the office expanded its services to provide the Meat Industry in the Cleveland/Cuyahoga County area with assistance on bidding for Meat and Meat Food Products contracts at the Federal, State, County and Local government level. This assistance helped four businesses become bidders for U.S. Government (V.A.) contracts and helped three businesses become bidders for County agency contracts. These new bidders all received contracts.

AGRICULTURAL FINANCING COMMISSION

Tony Logan, Executive Director

The Ohio Agricultural Financing Commission (OAFC) was created and authorized by the 115th General Assembly (H.B. 826) and officially began its operation on January 11, 1985. The Commission consists of nine members: Director Steven D. Maurer, Ohio Department of Agriculture; Director Clarence Pawlicki, Ohio Department of Development; Mary Ellen Withrow, Treasurer, State of Ohio; Joseph Brubaker, Member; Judith Hall, C.P.A.; Glenn Lackey, Member; James Lewis, Vice Chairman; Francis Less, Member; Joseph Luby, Member.

The Commission's original primary function was to issue tax-exempt revenue bonds to private lending institutions, thereby generating money which Ohio's farmers could borrow at low interest rates. Farmers could then use the money to acquire and improve agricultural land and equipment. In 1986, due to changes in the federal tax laws, the feasibility and effectiveness of issuing tax-exempt agricultural revenue bonds was greatly reduced. Accordingly, the Commission's activities were significantly reduced during the last half of 1986.

As a result of the decline in the feasibility of issuing tax-exempt bonds, in 1987 the Commission is researching the possibility of creating a taxable bond program. If successful, such a program would achieve the same objective of the tax-exempt program, i.e., enabling farmers to borrow money from local lending institutions at lower than commercial interest rates.

To issue tax-exempt agricultural revenue bonds, the Commission was required to engage in a two-step process. First, the Commission would meet to review the farmer's application for an issuance of a bond. The Commission would discuss the applicant's intended use of the money with the applicant and then vote on whether or not the applicant's intended project was a project consistent with the goals and regulations of the Commission. This first step was known as an "inducement," and merely gave notice to the farmer/applicant that his project was eligible for agricultural revenue funding. The farmer could then attempt to finalize the terms of a loan agreement with his

private lending institution, which had to agree to purchase the bond.

The second step of the issuance process was the actual issuance of the bond. Once the farmer/applicant has finalized his arrangements with his lending institution and has entered into an agreement to purchase the property in question, the Commission would meet and vote on the actual issuance of a bond. If the Commission approved, an agricultural revenue bond would be issued to the farmer/applicant's bank, and the farmer/applicant would secure an agricultural revenue bond loan.

The Commission held seven meetings in 1986, and formally issued 11 agricultural revenue bonds worth a total of $2,898,000. Each bond that was issued funded a single project. In addition, the Commission induced but did not issue 25 bonds worth a total of $9,059,000.

DIVISION OF CRIMINAL INVESTIGATION

Jim Thompson, Chief

The Food Stamp Trafficking Unit (FSTU) was formed based upon a contract between the United States Department of Agriculture's Food and Nutrition Service, the Ohio Department of Human Services and the Ohio Department of Agriculture. Based upon this contract, the FSTU is the statewide enforcement unit for food stamp fraud and trafficking.

The majority of the referrals for investigation have come at the request of Federal, State, County, and Municipal agencies. FSTU personnel have gained an expertise in the field of food stamp investigation and are duly respected by law enforcement departments.

The Food Stamp Trafficking Unit closed 232 total cases during the reporting year of October 1, 1985 through September 30, 1986. This is an increase of 13 cases over previous years and of the 232 closed cases, 61 cases were prosecuted, 64 handled administratively, 6 referred to USDA/FNS, and 100 were deemed unfounded or unsubstantiated.

During the year, the Department used $16,669 in food stamps during trafficking investigations/operations, until the supply was depleted.

Working mostly recipient-type fraud investigations this past year, FSTU identified $61,971 in food stamp fraud, $21,253 in fraud, and an estimated total program savings of $218,693 was identified.

In July 1986, a new program was instituted, which allowed ODA to petition the court to order monetary restitution to the Department as a condition of probation for any trafficking cases resulting in probation.

In addition, when recipient fraud/theft cases are involved, the court can order restitution. However, this money is awarded to each respective county by the court, as one condition of the suspect's probation.

Examples of FSTU Cases:

May 1986 - Working with the Akron Police Department, a search and arrest of three suspected resulted in another $1,200 in food stamps being recovered.

March 14, 1986 - After working on an investigation in conjunction with Columbus Police Department, a fugitive from Jacksonville, Florida, was arrested and returned to Florida on a warrant on food stamp theft. He had also filed a false application the previous week.

January 1986 - Four suspects, including the owner of a money exchange and issuance center, and an insurance agent were charged by the FSTU with the robbery of food stamps at a Cleveland issuance center. They received prison sentences.

COMPLIANCE AND EVALUATION SECTION

This Section is comprised of four investigators, a supervisor and a secretary. One investigator is assigned full time to the Meat Inspection Division and one to the Pesticide Enforcement Section of the Pesticide Regulation Division. The other two investigators cover nine of ODA's Divisions.

The year began with 236 pending investigation complaints. Two hundred and sixteen (216) new complaints were received and 280 cases were closed.

Fifty-six (56) complaints were elevated to full case status—of the 56 cases, 33 could not be resolved, so prosecution action was undertaken.

Eighty-nine (89) Notices of Violations were issued under the Department's voluntary compliance warning policy.

There were 207 consumer complaints handled before the program was turned over to the Food, Dairy and Drugs Division in the last quarter of 1986.

The Department's Meat Inspection Title II program resulted in 46 embargoes for adulteration and/or misbranding of meat. Over 8,440.5 pounds of product was taken off sale and 72 incident reports were filed. The Evaluation Incidents

Reports are a means of finding and correcting minor problems or breakdowns in a program.

New assignments/investigations	216
New assignments/completed	280
Full case investigations	56
Non-case violators with Notice of Violations issued	89
Prosecutions	33
Pending assignments	172

DIVISION OF GRAIN WAREHOUSE

Fred Arnold, Chief

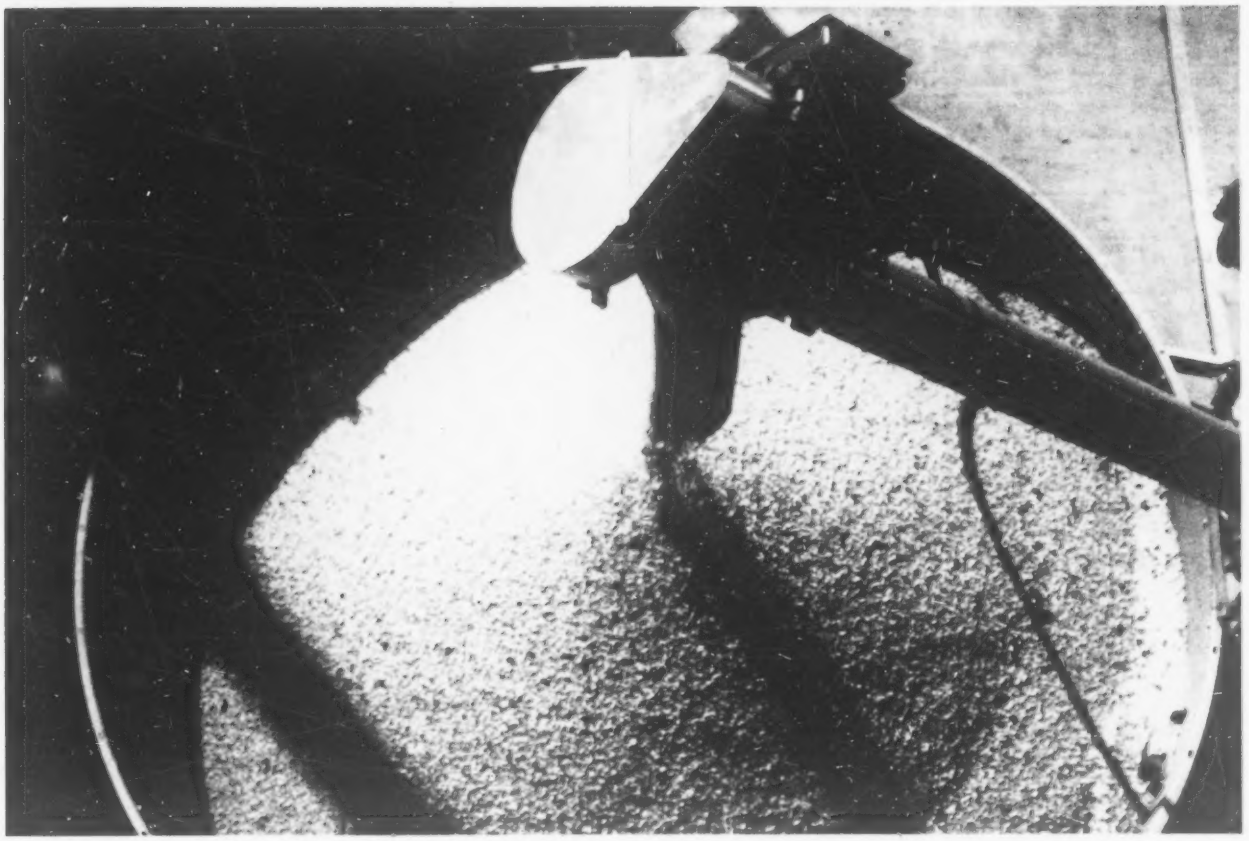
The Division of Grain Warehouse licenses and regulates agricultural commodity handlers (grain elevators) in Ohio and administers a $5.6 million Indemnity Fund, which reimburses farmers when a licensed elevator becomes insolvent.

The Indemnity Fund is supported by a 1/2 cent per bushel assessment on grain marketed at licensed elevators in Ohio. The assessment is only collected if the Indemnity Fund levels drop below $4 million. To date, the fund has reimbursed farmers $2 million for commodities they have forfeited in elevator insolvencies.

Legislation establishing the Indemnity Fund and regulatory requirements for grain elevators became effective July 1, 1983. This legislation gave ODA more authority to control elevator insolvencies and protect farmers through the regulation and licensing of agricultural commodity handlers. Prior to this legislation, from 1968 to 1983, approximately $9 million was lost by farmers in grain elevator insolvencies.

Elevators are licensed after a current financial statement and insurance verification is submitted to ODA and meets licensing requirements. The financial statement must consist of a balance sheet, income statement, retained earning statements, and financial charges statement. This information must be verified by someone that does not have a business interest in the elevator's operations.

Nine grain warehouse examiners are employed by the Grain Warehousing Division to conduct elevator examinations. These examinations take place at least once a year. Some elevators with weaker financial positions are examined more often by ODA to insure financial stability.



During an examination, financial records are thoroughly examined; grain on storage is measured and verified; and grain warehousing receipts are checked.

Since ODA already conducts elevator examinations, the USDA and the Department have entered into a Cooperative Agreement, which authorizes ODA to examine state licensed elevators with a Uniform Grain Storage Agreement enabling them to handle CCC grain.

ODA is constantly upgrading examination procedures and is cooperating with CCC to minimize duplication of effort and save money.

A seven member Commodity Advisory Board advises and counsels the Director of Agriculture and the Division of Grain Warehouse in the administration of the Ohio Grain Warehousing Law, including approving farmer claims for payment from the Indemnity Fund when a grain elevator becomes insolvent.

The Commission members are: Joe Whitney, Chairman, Auglaize County; Jesse Curtis, Logan County; Jane Johnston, Fayette County; Ellen Ricketts, Fairfield County; Gene Beaston, Wyandot County; Floyd Sisinger, Allen County; and William Koon II, Allen County.

COMPARATIVE SUMMARY OF RECEIPTS AND EXAMINATIONS

	1986	1985
Commodity Handler License Fees	$ 171,395.78	$ 180,148.12
Number of Handler Licenses Issued	707	705
Total Monies available in Indemnity Fund	4,861,095.97	3,655,921.01
Interest Earned on Indemnity Fund	799,646.97	320,948.12
Balance in Treasurer's Account 498	5,660,742.94	3,976,869.13
Claims Against Indemnity Fund	105	84
Total Amount Paid in Claims	289,477.66	204,892.67
Monies Recovered to Indemnity Fund	20,751.82	-0-
Number/Warehouse Examiners	9	9
Number/Warehouse Examinations Completed	735	658
Violation Notices Issued	71	48

DIVISION OF WEIGHTS & MEASURES

Bruce Litzenberg, Deputy Director/Chief
Jim Truex, Manager

In Ohio, the Director of Agriculture is the State Sealer of Weights and Measures. A Deputy Sealer (Chief of the Division of Weights and Measures) is appointed by the Director and is responsible to the Director for the administration and enforcement of all weights and measures laws of the Ohio Revised Code. The office of the Chief of Weights and Measures and the state metrology laboratory, where the state's primary mass, length and volume standards are housed, are both located at the Department's laboratory facility in Reynoldsburg.

Presently, the Division of Weights and Measures has the responsibility of implementing seven major programs.

Metrology - Ohio's metrology lab is well equipped with personnel capable of performing routine testing, calibrations and specialized requests with a high degree of technical and professional competence. The laboratory is a participant in the Laboratory Auditing Program administered by the National Bureau of Standards. The laboratory and state metrologists have also participated in the Northeast Measurement Assurance Program and its round-robin activities since the conception of the program in 1979. The Division continues to work with the National Bureau of Standards' Office of Weights and Measures to insure compliance with the "certification by measurement area" program. A Laboratory Quality Assurance Program has also been implemented. The Division recognizes the need to continually upgrade the staff training, measurement equipment and overall laboratory competence.

This year 7,517 official, commercial or scientific standards were submitted to the metrology laboratory for testing or calibration. The lab performed service for 169 different companies, 55 local jurisdictions in Ohio and 4 other governmental agencies.

National Type Evaluation Program (NTEP) Laboratory - Ohio is known as the "cradle of the scale industry" due to the large number of major scale manufacturers that distribute their devices worldwide. The Ohio scale industry depends upon an effective, equitable state weights and measures program in order to compete profitably with industry from neighboring states, as well as with foreign manufacturers.

As a participating laboratory under the National Type Evaluation Program, Ohio has established itself as a leader in the field of weights and measures. Presently, only two other laboratories in the United States have NTEP authorization; one is the National Bureau of Standards' Office of Weights & Measures and the second is the State of California.

Ohio's NTEP Laboratory provided evaluation services to five Ohio companies and nine out-of-state companies during 1986. This center for the evaluation and approval of scale designs and other weighing and measure elements, thoroughly evaluated 23 devices and five indicators during the year. The National Bureau of Standards/Office of Weights and Measures issued "Certificates of Conformance" for twelve of the devices/indicators Ohio's NTEP staff evaluated.

Advise, Assist and Train - There are 88 counties and 12 cities in Ohio that have established weights and measures programs. All local jurisdictions check small capacity scales and gasoline pump meters. Many of the jurisdictions reweigh packages and some check parking meters, taxi meters, and investigate local complaints.

The Director of Agriculture and his Deputy State Sealer advise and assist these local sealers regarding their powers and duties. Under provisions of the Ohio Revised Code, the State shall provide for the training of local weights and measures sealers and may establish minimum training requirements.

Additionally, the Department assists the local weights and measures jurisdictions through the following programs:

Vehicle Scales - Ohio has five large capacity scale testing units. Two of the units are tractor trailer rigs that carry 40,000 pounds of calibrated test weights. One is a tandem axle unit that carries 20,000 pounds of calibrated test weight. The other two carry 10,500 pounds of calibrated test weight.

This year 2,282 vehicle scales were tested and/or inspected—of this number, 613 were rejected for repair or condemned for replacement on the initial check, for a rejection rate of 28 percent.

Livestock Scales - During 1986, two of the Division's smaller scale-testing units were used to test livestock scales throughout Ohio. Only 43 of the known 206 livestock scales were inspected and/or tested this year.

The initial rejection rate was 51 percent.

Fuel Meters - Ohio's Weights & Measures Division operated two 100 gallon provers on trailers and a 95 gallon L.P. Gas prover during the year. State weights and measures inspectors travel the State with these provers, inspecting and testing fuel delivery truck meters. In 1986, 2,803 such meters were inspected and/or tested and of this number, 723 required adjustments or were condemned for repair or replacement on the intial tests/inspections for an average rejection rate of 21.7 percent for fuel meters and 50.6 percent on L.P. gas meters.

Package Control - Ohio has two weights and measures staff members assigned to check prepackaged commodities (fertilizer, meat, milk, produce, etc.). Special assistance, specialized complaints and consumer complaints are also investigated under this program (short weight and short measure in firewood, kerosene, insulation, etc.).

One hundred and ten (110) violation letters were sent to packers in violation of Ohio law notifying them of the nature of their violations (short weight, improper labels, etc.). In addition, a listing of documented package violations was included in each issue of the Division's "Quarterly Review" newsletter for local weights and measures jurisdictions' review.

DIVISION OF WEIGHTS & MEASURES
Inspection Statistics
1986

FIELD PROGRAMS:

	INITIAL CHECK			RECHECK			Total Tested &/or Inspected	Total Known	Rejection Rate
	Sealed	Rejected	Condemned	Sealed	Rejected	Condemned			
Large Capacity Vehicle Scales	1,488	514	67	54	18	14	2,282	2,868	28%
State Patrol Vehicle Scales	16	4	1	0	0	0	21	21	24%
Livestock Scales	23	12	2	1	0	0	43	206	51%

	INITIAL CHECK				RECHECK				Total Tested &/or Inspected	Total Known	Rejection Rate
	Sealed	Adjusted	Rejected	Condemned	Sealed	Adjusted	Rejected	Condemned			
Fuel Meters (100 gallons)	2,166	413	51	24	19	10	4	1	2,272	2,495	21.7%
L.P. Gas Meters	431	202	27	6	13	13	3	3	531	626	50.6%

	Number Lots Checked	Number Packages Checked	Number Packages Represented in Lots	Number Lots Rejected	Number Packages Ordered Off-Sale
Random	356	8,766	512,642	54	63,750
Standard	351	4,172	18,,422	225	7,530

	Number Products	Number Products Suspected Short	Percentage Suspected	Establishments Visited	Violation Letters Issued
Audit Testing	2,580	292	11.3%	372	110

NTEP Lab Stats

Devices < 2000 lb. Evaluated	Devices > 2000 lb. Evaluated	Indicators Only Evaluated	Total Devices/Indicators Evaluated	Certificates of Conformance Issued
16	7	5	28	12

5 Ohio companies received type evaluation services.

9 Out-of-State companies received type evaluation services.

DIVISION OF MARKETS

Martin A. Miller, Acting Chief

The Division of Markets provides support services to Ohio's agricultural industry in the movement of food and fiber from producers to consumers. These services include, but are are not limited to: grading, inspection, promotion, and market intelligence with regards to Ohio's position in the world market place.

Market Development - Emphasis is placed on new product and new market development projects for Ohio. Much of the funding for these projects are industry shared, or matching funds from the USDA, or Department's Rural Rehabilitation funds.

The Division works closely with commodity groups established under the Ohio Revised Code to develop new markets and to provide resources. These groups include: the Ohio Nursery Stock Marketing Program, Ohio Grape Marketing Program, Ohio Apple Marketing Program, Ohio Beef Marketing Program, Ohio Egg Marketing Program and the Ohio Turkey Marketing Program, as well as other commodity groups like the Ohio Pork Producers Association, Ohio Soybean Association, and the Ohio Corn Growers Association.

Funding for commodity development projects is generally from self-imposed producer assessments. The Grape Industries Program, however, receives its monies from a 3 cent per gallon tax on wines sold in Ohio.

International Trade - One major activity in the Division of Markets is the International Trade Program.
This program is designed to foster international trade relationships between foreign buyers and Ohio agribusiness firms via a trade leads match making service and participation in foreign food expositions. The focus of the program is aimed toward small businesses.

The Division achieves its international trade objectives by sponsoring seminars, workshops, and individual firm counseling. The Division promotes international activities sponsored by the Foreign Agricultural Service and private enterprise. The Department has participated in trade missions to foreign countries and hosted trade missions to Ohio. This program assisted with the sale of and contracts for approximately $8 million worth of foodstuffs and livestock to other countries within the last year.

Fruit and Vegetable Inspection - To maintain the quality of produce sold in Ohio, the Division of Markets has a cooperative agreement with the USDA to provide grading and inspection service. Commercial inspections for grade and/or condition of fresh fruits and vegetables provide the basis for orderly marketing of produce. Most of the state and federal institutions utilize these inspectors to insure the quality of produce being delivered. During the

harvest season, additional graders are hired for grading of tomatoes, pickles, onions, and potatoes. Inspections take place at commercial establishments, institutions, and shipping points.

Poultry Grading - Poultry grading is another federal-state cooperative program where state personnel grade for the USDA. Grading is a marketing service that establishes

various levels of quality characteristics on poultry products. Grade factors enable the industry to have specific parameters for various quality factors and help the consumer more readily identify products, such as shell eggs, poultry, poultry products, and rabbits. There is also a Hatchery Surveillance Program and an Egg Surveillance Program to protect both producers and consumers.

Market News - The Division of Markets has two distinct programs, one for livestock, and one for grain market news. In the livestock program, 15 companies are contacted daily to determine Ohio direct hog prices. Other livestock information includes U.S. major terminal markets and direct country markets, beef markets (both live and dressed trade), sheep markets, feeder calf and feeder pig markets.

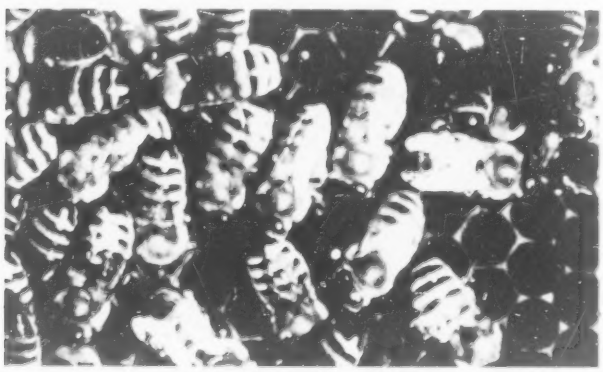
Ohio cash grain markets are reported daily, as well as futures prices; Toledo and Cincinnati terminal prices; and basis prices along with trends and changes in prices. This is the most comprehensive Ohio grain market available in the state.

The major wire service, newspapers, and radio stations utilize the Market News Service. Virtually, all those involved in buying or selling grain, livestock, poultry, and poultry products use the service. Additionally, insurance companies, investment companies, and other government agencies collect market information.

DIVISION OF PLANT INDUSTRY

Dick Tootle, Chief

The Division of Plant Industry is a multi-faceted division comprised of six sections, each responsible for the enforcement of Ohio laws—all having a biological basis. The purpose of these laws are to provide economic protection to the producer and the consumer.



APIARY SECTION

The purpose of the Ohio Apiary Inspection Program is to control and/or eradicate diseases affecting the honey bee. This is accomplished by the annual registration of apiaries by beekeepers and the inspection of these apiaries with state apiary inspectors supervising and assisting county-appointed inspectors.

Over 10,000 applications for registration were mailed to beekeepers in mid-March. Included with each application was a consent form because beekeeper consent must now be given before any colonies are inspected.

The most serious disease affecting bees, American foulbrood, was most prevalent in the counties of Cuyahoga, Wood, Geauga, and Putnam.

APICULTURE PROGRAM

Total Bee Colonies Inspected	56,679
Registration Certificates Issued	8,720
Delinquent Fee Receipts Issued	109
County Appointments Approved	114
Consumer - Beekeeper Requests	533

CERTIFICATES AND PERMITS ISSUED

Certificate of Health (Out of State Movement)	12
Permit of Entry into Ohio	9
Quarantine Apiary Movement	1
Queen Rearing Certificate	2
Transfer Ownership Permit	85
Total Apiaries Inspected	9,094
Total Colonies Inspected	56,679
Interstate Movement Inspections (colonies)	3,936
Disease Samples Taken for Diagnosis	845

FEED AND FERTILIZER SECTION

This section administers Ohio's Commercial Feed Law, Fertilizer Law, Agricultural Liming Materials Law, Agricultural Additive Law, and Anhydrous Ammonia Regulations. Feed and liming material manufacturers and distributors are licensed annually by calendar year. Fertilizer licenses and specialty fertilizer registrations are issued by fiscal year (July/June). A $5 license fee is charged for feed and fertilizer licenses. A liming material license

is $50. Registration of specialty fertilizer (lawn and garden) is $50 per grade. Additive registration is $50 per product per year.

With the exception of the Agricultural Additive Law, all of the other laws provide for an inspection fee. The inspection fee is 10 cents per ton for feed, 12 cents per ton for fertilizer, and 1/4 of 1 cent for each ton of liming material in excess of 2,500 tons.

In 1986, there were 1,128 firms licensed to manufacture or distribute commercial feeds, 87 firms to distribute liming materials, and 648 firms to manufacture or distribute commercial fertilizers. Registrations were issued for 1,536 specialty fertilizer products and two agricultural additives.

The office staff is responsible for issuing licenses, registering products, and processing inspection fee reports. Product analysis bulletins and fertilizer tonnage sales reports are prepared semi-annually. The liming tonnage report is prepared annually. These reports are distributed to the county agents and depending on availability, may be requested by contacting the Feed and Fertilizer Section.

Feed and Fertilizer Laboratory - The agricultural chemical laboratory analyzes animal feeds, fertilizers, liming materials, pesticides and samples. These analyses are to insure the proper labeling of consumer and specialty products. Feeds are checked for protein, drugs, minerals, vitamins, trace elements and adulterate.

Fertilizers are being tested for nitrogen, phosphorus, potassium and trace elements. Calcium, magnesium, total neutralizing power, and screen analyses are performed on agricultural liming materials. Custom mix samples are being implemented for assays .

FEED PROGRAM

Licenses Issued	1,128
Tonnage Processed	1,469 (1,606,610 tons)
Inspections	2,465
Samples Collected	1,598
Samples Out of Tolerance	262
FDA Medicated Feed Inspection Hours	144/806 hours

FERTILIZER PROGRAM

Licenses Issued	648
Registrations issued	1,536
Tonnage Processed	865 (2,317,226 tons
Inspections	1,560
Samples Collected	1,312
Samples Reported	1,254
Samples Out of Tolerance	229
Anhydrous Ammonia Inspection Hours	---

LIMING MATERIAL PROGRAM

Licenses Issued	87
Tonnage Processed	47 (1,073,005 tons)
Inspections	138
Samples Collected	87
Samples Reported	77
Samples Out of Tolerance	27

PESTICIDE REGULATION SECTION

The certification of private and commercial applicators under Ohio's plan, approved by the United States Environmental Protection Agency, is still in effect. Certification is required of all applicators if they are to use those

pesticides, which have either state or federal restricted uses. Certification requires training and passing a written examination on certain categories of pesticide application. Certification is a method of determining that a person is competent in using pesticides.

Since the certification program was initiated, approximately 35,000 private applicators (growers of an agricultural commodity) have attended pesticide training sessions conducted by the Ohio State University Cooperative Extension Service and the Ohio Department of Agriculture. This year 637 persons have been certified for the first time as private applicators to use restricted-use pesticides. Since 1977 a total of about 26,382 persons have been certified as private applicators in Ohio with 15,702 still certified to use "Restricted Use" pesticides.

Four regional commercial-private pesticide applicator training sessions were held by the Cooperative Extension Service, and the Department of Agriculture during December for the required recertification. Certification is only valid for three years. Two sessions were also held in February for new commercial applicants who wish to become licensed. A total of 2,243 persons attended the December sessions and 542 at the February sessions.

Ohio had 6,944 commercial pesticide applicators certified and licensed during 1986.

Pesticide products, which include sanitizers, germicides, insecticides, fungicides, and herbicides, are required to be registered if they are to be distributed in the State. During late winter and early spring, the field staff concentrated on visiting pesticide distributors and dealers who stock these products to assure that the products were registered and properly displayed to avoid contamination of the environment and food products. Products were randomly sampled for laboratory analysis to assure that they met labeled claims for active ingredients.

The annual pesticide product registration was completed with 1,105 companies registering 9,455 pesticide products for sale in Ohio. This is an increase of 386 products registered from the previous year. Fourteen 'Stop Sales' were placed on pesticide products and three 'Stop Sales and Recalls' were placed on products being deficient/over formulated or non-registered.

During this period, one special "Section 18," or emergency use exemption for a specific pesticide, was requested from and approved by U.S. EPA with one denied. The specific uses of selected pesticides were issued for use on lettuce and onions. One request was withdrawn by the Department as additional information requested by EPA was not available.

This Section sent 42 "Notices of Warning" to applicators for various violations of the Ohio Pesticide Law.

PLANT PEST CONTROL SECTION

During 1986, 1,133 nurseries were inspected, with 13,092 acres of nursery stock. Inspectors made over 2,000 spring retail dealer inspections. Due to unusually warm temperatures in early March, followed by a very cold period, considerable container plant damage was noted in some dealer outlets, otherwise spring dealer work was routine.

During summer nursery inspection, a bacterial leaf spot was detected on container grown magnolia varieties. This was the first record of this disease in Ohio.

Black Vine Weevil continues to be the number one economic insect pest in Ohio. The other top nursery pests and diseases are as follows:

INSECTS	DISEASES
1. Black Vine Weevile	1. Leaf Spots
2. Pine Needle Scale	2. Apple Scab
3. Japanese Beetle	3. Powdery Mildew
4. Twospotted Spider Mite	4. Gymnosporangium Rusts
5. Flectcher Scale	5. Twig Blights
6. Spruce Spider Mite	6. Crown Gall
7. Oystershell Scale	7. Fireblight
8. Cooley Sprucegall	8. Phytophthora Root rot
9. Honeylocust Spider Mite	9. Pyracantha Scab
10. Pine Bark	10. Cankers, Misc.

Detection of the exotic Egyptian Cottonworm *(Spodoptera Littoralis)* for the first time in the U.S. occurred this past winter in an Akron greenhouse. The pest was assumed to have entered on infected cuttings from Israel. Deployment of pheromone and blacklight traps, pesticide applications and greenhouse quarantines took place there in an eradication effort. The last moth was trapped on March 1, and the pest was declared eradicated on April 5.

Cuttings from the same Israeli supplier were received into an Ohio State University greenhouse in late winter. Although no pest infestations were reported in association with this shipment, a blacklight trap was deployed in the greenhouse as a precautionary measure in late May. Moth catches in the trap were negative for any exotics and the trap was removed in September.

PLANT PEST CONTROL SECTION ACTIVITIES

Nursery Inspection Certificates Issued	1,379
Nursery Dealers Certificates Issued	3,179
Hardy Bulb Dealer Certificates Issued	91
Nursery Agents Certificates Issued	76

NURSERY INSPECTIONS

Initial Inspections of Nursery Year	1,502
Recall Inspections	408
Storage Inspections	17
Strawberry/Raspberry Inspections	29
Restrictions	22
Dealer Inspections	2,255
Stop Sales	825
Seizures	26
Rejection Notices	56

SPECIAL INSPECTIONS

Inspection of plant material for homeowners moving to other states	74
Export Certificates of Nursery Stock and other Agricultural commodities	577
Post-Entry Quarantiné Inspections	50
Investigations	1,458
Prosecutions	0
Pest Diagnosis	477

Export of raw or unprocessed agricultural commodities must be certified free of injurious insects, diseases, and other pests such as weed seeds, nematodes, snails, etc., in order to protect the importing country's agricultural industry. The inspection and certification of Ohio products for the export market is conducted largely by the Plant Pest Control inspection force. Some grain is also inspected at the Lake ports by federal inspectors.

GYPSY MOTH

The Gypsy Moth is one of the most destructive pests now threatening our forests and ornamental plants in Ohio. One caterpillar can devour one square foot of leaf surface every 24 hours.

Gypsy Moth trapping again took place in all 88 Ohio counties, with a total of approximately 16,000 traps placed statewide. Twenty-one counties were negative for moth catches and about 31,000 moths were caught in all the other counties combined. Ashtabula County again recorded the highest moth count with 14,854 in 1,100 traps. Virtually every trap in this county was positive. Other counties which reported heavy catches were those on the State's northern border.

Sometime after the first of the year, Ohio will be installing a Gypsy Moth quarantine on four areas of Ashtabula County and possibly Lake County. This quarantine will cover such items as nursery stock, cut christmas trees, logs, lumber, recreational vehicles and outdoor household articles.

SEED SECTION

Early in the Fall of 1986, it was determined that weather-related causes were reducing the germinability of many lots of soybeans and that the application of a fungicide to the soybean seed would improve markedly the results of many germination tests. During the last winter months of 1986, the greenhouse was used, as in previous years, to aid in the germination testing of soybeans.

SEED PROGRAM

Seed Labelers Permits Issued	382
Seed Tags Issued	2,800
Seed Tonnage Fees	$124,717.83
Inoculant License Issued	8
Applicator's Licenses Issued	142
Inspections	4,457
Samples Taken	2,222
Samples Analyzed	2,167
Stop Sales	41
Relabel	126

DIVISION OF FOODS, DAIRIES AND DRUGS/LABORATORY SECTIONS

Frank R. Neel, Deputy Director/Chief

The Foods, Dairies and Drugs (FD&D) Division was responsible for the inspection of over 19,216 food establishments in the State of Ohio—including the licensing of 4,916 bakeries, 165 bottling plants, 6 syrup and extract firms, 1,249 frozen food establishments and 105 canneries during the period of January 1 to December 31, 1986.

These inspections require compliance with the laws and regulations of the State of Ohio regarding sanitation, product control, labeling and adulteration. Retail Food Markets constitute the largest single type of establishments inspected by the Division of Foods, Dairies and Drugs.

Samples of foods are submitted by our inspectors to the Consumer Laboratories for analysis where tests are run for bacteria, adulteration, quality and labeling.

Manufactured Milk Products Inspection · FD&D Inspectors annually inspect sanitation, handling and storing of manufactured milk products.

All milk dealers must show financial responsibility for raw milk purchased from farm producers. The Ohio Food, Drug, Cosmetic and Device Law was enforced on any dairy food found not in compliance. FD&D must review and comment on all labeling and advertising of dairy products having a standard of identity.

There were 1,187 frozen dessert establishments licensed and inspected between January 1, 1986 and December 31, 1986. All bulk milk haulers, weighers, samplers and testers had their annual licenses renewed.

Farm producers are to be inspected for sanitary conditions annually. Likewise, each manufacturing facility requires an annual inspection for sanitation and an audit of records required by law covering bacteria, sediments, butterfat tests, antibiotics, chemical and pesticide residues.

TOTAL LICENSES

Bakeries	4,916	Frozen Food Establishments	2,075
Cannery Licenses	2,075	Soft Drink Licenses	165
Syrup & Extract	68	Cold Storage Warehouses	46
Dairy Plants (Dealers)	83	Temporary Weigher, Sampler, Tester	119
Weigher, Sampler, Tester	877	Frozen Dessert Establishments	1,187

*TOTAL - 9,647

DIVISION OF MEAT INSPECTION

Samuel R. Waltz, Chief

The Division of Meat Inspection is responsible for administering the Ohio Meat Law in such a manner as to conform to provisions of the Wholesome Meat Act passed by Congress in 1967. The Ohio program, as those of other states, is subject to review by the Federal Meat Inspection Service and must be certified as "EQUAL TO" federal inspection through quarterly reviews.

The Division operates its field program through 13 geographical districts, each district being supervised by a veterinarian and one or more program supervisors. Overall supervision of the program is provided by the Division Chief and Assistant Chief with the support from the technical staff headquartered at 8995 East Main Street, Reynoldsburg.

The objective of the Meat Inspection Program is to assure that meat and poultry products are processed under sanitary conditions, are wholesome, unadulterated and properly labeled. To accomplish this, inspection is accomplished in the following steps:

1. Approval of Plant Facilities and Sanitation - Each establishment must provide a safe water supply, adequate sewage disposal system, properly installed plumbing and drainage system and such other facilities and procedures as are necessary to maintain sanitary conditions within the establishment and to allow the production of wholesome products.

2. Antemortem and Inspection - Each animal/bird slaughtered for human consumption is examined by division inspectors before slaughter, and its carcass is examined at the time of slaughter and dressing to determine that it is wholesome and free of contamination. Animals and carcasses found to be diseased are handled under veterinary supervision to assure that all meats and poultry which are diseased or otherwise unwholesome are disposed of in a manner that precludes their entering the public food supply.

3. Reinspection - Products passing post-mortem inspection are subject to reinspection at every stage of handling to assure that only wholesome products, properly identified with an Ohio inspection legend leaves the establishment.

4. Preparation - Industry is required to exercise controls during the preparation of processed products to assure that only wholesome ingredients are used and that added substances are approved and used only in allowable quantities. Processes must be adequate to eliminate the trichinae hazard, if pork is an ingredient of a product which is to be eaten without further cooking. The establishment is required to follow written formulas and processing procedures.

5. Labels - Labels to be used on processed products must be submitted to the division for advance approval. These labels on consumer packages must bear the Ohio inspection legend. This is the consumer's assurance that the product was wholesome, unadulterated and properly labeled when leaving the establishment.

DIVISION OF ANIMAL INDUSTRY

Dr. Harry E. Goldstein, Deputy Director/Chief

This Division is charged with the promotion and protection of the Ohio livestock industry. Its table of organization contains four major sections which are: animal disease programs, licensing, inspection and quarantine; pathology services, and biological tests.

The Division of Animal Industry participates in monitoring animal diseases and reports the statistical data concerning disease incidences and locations in Ohio to the USDA.

Animal disease programs are maintained and developed to assist in the control and eradication of disease that affect domestic livestock and to prevent their entry into Ohio.

The accompanying tests and structural programs are all designed to control and/or eradicate the significant diseases of livestock.

ANIMAL DISEASE PROGRAMS

Tuberculosis - This disease is communicable to humans and has a debilitating affect on animals causing them to waste and to be non-productive. Ohio recorded three tuberculin "positive" animals involving two herds.

Two of these "positive" animals were bison, the other was a seven year old dairy cow.

All reacting animals were slaughtered under supervision and no lesions of tuberculosis were found on post-mortem examination. Subsequent retests of the herds have all been negative.

Equine Infectious Anemia (EIA, Swamp Fever) - EIA is a disease that is not transmitted to humans but is lethal to horses. Testing revealed 11 positive horses in 1986. The number of positive horses detected and the number of horses under quarantine continues to decrease.

Brucellosis (Bangs, Undulant Fever) -Brucellosis is communicable to humans. The disease causes spontaneous abortion in cattle and kills calves.

During 1986, Ohio had one herd of cattle confirmed positive for brucellosis infection. This herd was depopulated in April and since that time, no new infection has been found. On June 30, 1986, Veterinary Services, USDA, declared Ohio free of swine brucellosis and Ohio became a Validated Brucellosis Free Area.

In the letter validating Ohio, Veterinary Services stated, "Ohio's Swine Brucellosis Eradication Program is highly commendable. Especially notable is Ohio's procedure, initiated in 1985 of tagging all sows and boars at all Ohio markets, and its efforts to have identified Ohio swine bled at key slaughtering establishments located in Kentucky, West Virginia, Virginia, Michigan, and Wisconsin."

This tagging procedure for brucellosis has also been adopted to determine the occurence of pseudorabies in Ohio's swine populations.

Pseudorabies (PRV, Aujesky's Disease) - PRV is not contagious to humans, but it will kill sheep, cattle, dogs, cats and baby pigs. There were 36 newly infected herds found in 1986. This is 36 fewer infected herds than found in 1985. On December 31, 1986, Ohio had 88 quarantined PRV herds five less than 1985. Sixty-six (66) of these herds are located in Mercer and Fulton counties.

During 1986, Ohio and other states conducted pseudorabies and brucellosis tests on 28,385 identified swine blood samples collected at slaughter. This program continues to be an effective way to find infection. Statistics indicate that less than 1.3 percent of the cull swine marketed in Ohio are infected with pseudorabies.

During the fair season, the PRV lab tested over 26,000 submitted samples. A large percentage of these samples were for exhibition purposes and again demonstrated the low rate of PRV infection in Ohio.

LICENSING, INSPECTION AND QUARANTINE (LIQ)

The LIQ issues licenses to the following: Livestock dealers, livestock auction markets, livestock concentration yards, slaughter establishments, livestock weighers, garbage feeders, rendering plants, and raw rendering material collectors.

The LIQ helps protect the livestock farmer when selling his animals by insuring accurate weights and requiring scales to be tested every six months. ODA monitors records of dealers and markets so that epidemiological tracing can be accomplished in the event of disease outbreaks.

Swine garbage feeders are inspected monthly. At these inspections, the cooking temperature of the feed (garbage) is checked, the general sanitation of the premises is inspected and the health of the animals is evaluated. This program prevents the spread of exotic and domestic diseases.

PATHOLOGY SERVICES

Pathological services included necropsy, histopathology, bacteriology, and parasitology. Clinical pathology is available on a limited basis. These studies combined with the information obtained from history, serology, and virology are the basis for making a diagnosis. The diagnosis, with laboratory findings, is reported to the veterinarian and animal owner who submits specimens to the laboratory.

BIOLOGICAL TESTS

The Biological Tests Section serves the Division of Animal Industry with various tests needed for regulation and diagnostic efforts. These tests primarily involve serology with some limited work in virus isolation using egg inoculation and cell culture techniques. The present test service includes brucellosis, equine infectious anemia, pseudorabies, ieptospirosis, bluetongue , anaplasmosis, bovine leukosis, bovine virus diarrhea, infectious bovine rhinotracheitis, para-influenza-3, and various poultry serologic and culture technique.

January 1, 1986 - December 31, 1986 ANIMAL DISEASE PROGRAMS ACTIVITIES

BRUCELLOSIS

Farm Blood Tests - Herds	2,601
Milk Ring - Herds	9,749
Market Cattle Blood test	176,029
Over-all infection Rate (Cattle)	.006%
Calves Vaccinated	65,042
Cattle	30,722
Cattle	380,192

EQUINE INFECTIOUS ANEMIA

EIA tests of Ohio horses	37,597
Number of Ohio horses "Positive"	9

Percent of total tested	.024%
Number of Positive horses destroyed	15

PSEUDORABIES

Swine tested (serum neutralization test)	76,115
Infected herds found	36
Herds using Pseudorabies vaccine	46
Quarantined herds (on 12/31/86)	88

TUBERCULOSIS

Tuberculin Tests - Herds (Cattle)	2,896
Number of Cattle	36,696
Herds with reactors	2
Number of reactors	3

LICENSING, INSPECTION AND QUARANTINE - ACTIVITIES

TYPE OF LICENSE ISSUED

Auction Markets	35
Horse Auctions	8
Livestock Dealers	172
Rendering Plants	9
Garbage Feeders	11
Concentration Yards	79
Slaughtering Establishments	112
Weighers	576
Collectors/Raw Rendering Material	37

INSPECTIONS PERFORMED

Sheep Scabies (head)	50,126
Auction Markets	2,110
Concentration Yards	1,280
Rendering Plants and Raw Rendering Material Collectors	87
Garbage Feeders	129

PERMITS TO IMPORT FEEDER PIGS

Headage	236,162
Premises Inspected	1,203
Permits Issued	1,829

DIVISION OF FAIRS AND AMUSEMENT RIDE SAFETY

Leonard A. Cavalier, Chief Inspector

The Division currently has 11 inspectors, 2 supervisors, 1 chief inspector and 1 secretary. The Division inspects and maintains records on over 1,300 amusement rides at over 900 events and fixed facilities throughout the State. The responsibilities of the Fairs & Amusement Ride Safety Division are as follows:

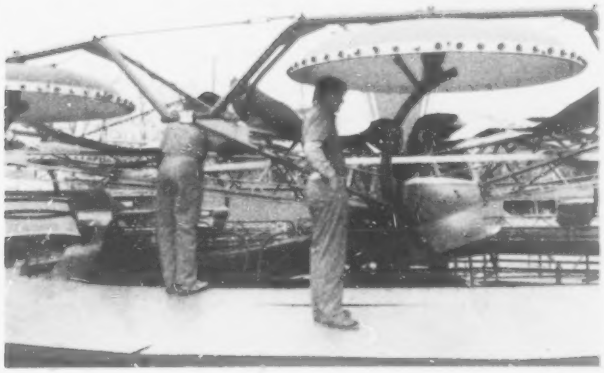
Ride Licensing - Both permanent and portable amusement rides and devices are inspected and licensed with regard to ride safety and liability insurance requirements pursuant to the Ohio Revised Code Sections 1711.50 through 1711.99. This includes go carts, water slides, and other water related attractions found in water parks.

Games - The Ride Safety Division is also responsible for the inspection and licensing of all games and novelty sales at the 95 county and independent fairs and the Ohio State Fair.

Fairs - Another responsibility of this Division is to regulate and monitor the activities of the 95 county and independent Agricultural Societies.

Division Goals & Programs - A new program has been established for the 1987 season in which permanent brass numbered I.D. plates are placed on the ride equipment. These plates will serve as a permanent license number which will remain on the ride. This will also give the Department the ability to track the various rides from owner to owner and follow the maintenance and modification records. Each year upon initial inspection, a validation sticker will be affixed to the tag.

The ongoing training of our inspectors is of great importance. During the fall and winter, each inspector received an average of 80 hours of formal class room training on amusement ride safety. This is in addition to field visits



with the ride companies to consult with their maintenance persons on various rides, maintenance procedures and safety bulletins.

The Division has developed a computer program which compiles information on itineraries, inspections, ride ownership, accidents and insurance data. This gives our personnel a breakdown of inspections and schedules on a weekly basis. The printouts are made available to the ride operators/owners as a valuable tool to help in their maintenance programs.

1986 SEASON STATISTICS (AS REPORTED)

Total Accidents Reported to Ride Division	65

CAUSES:

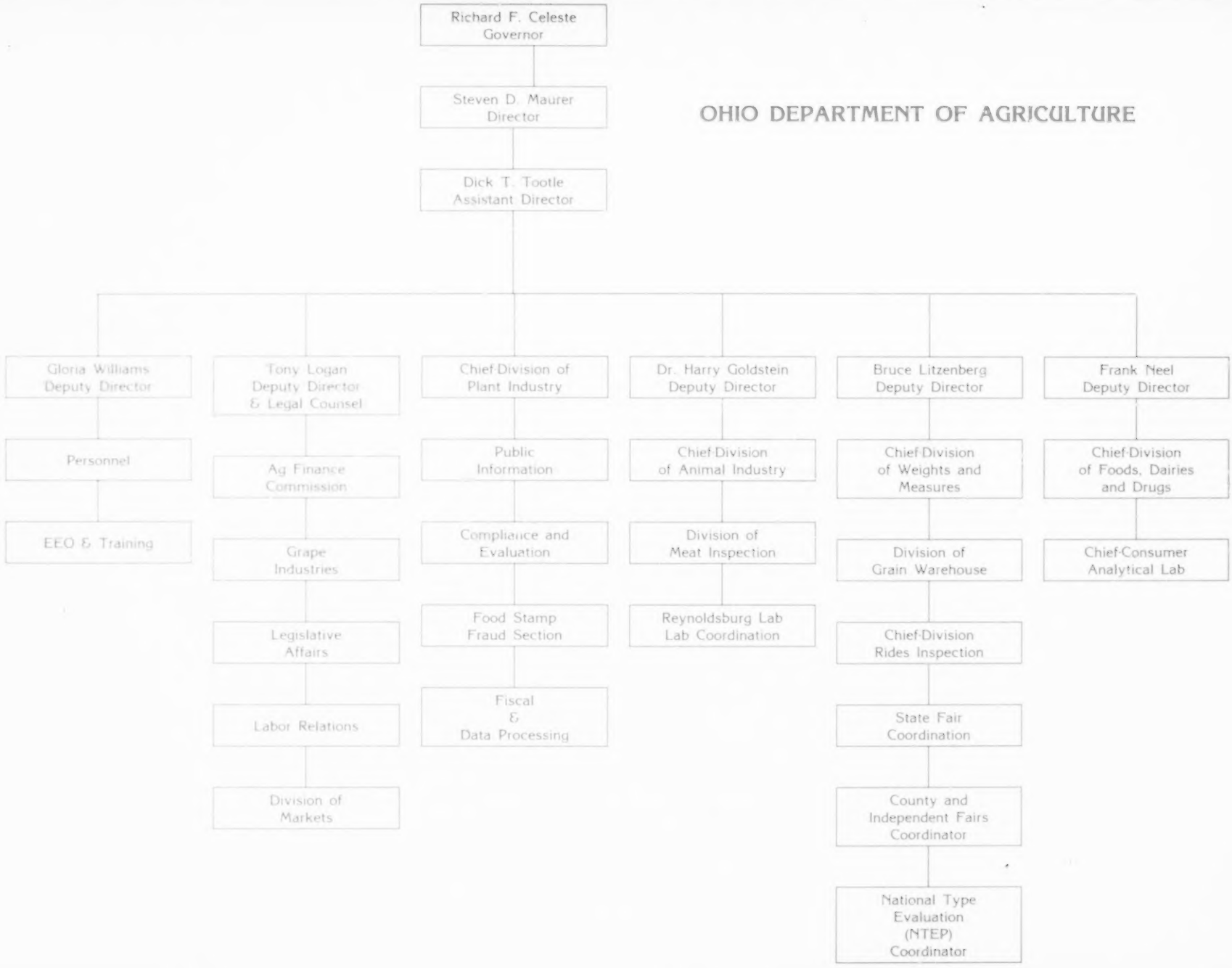
Operator Error	3	Unknown	7
Mechanical	4	Patron	51

REVENUE:

Ride Licenses	$20,070	Inspection Fees	$60,750
Game Licenses	$17,325	Novelties & Sales	$ 5,735

Total Number of Parks and Events Inspected	955
Total Number of Rides Inspected	10,524
Total Number of Ride Licenses Sold	1,338
Total Number of Ride Companies & Parks	151

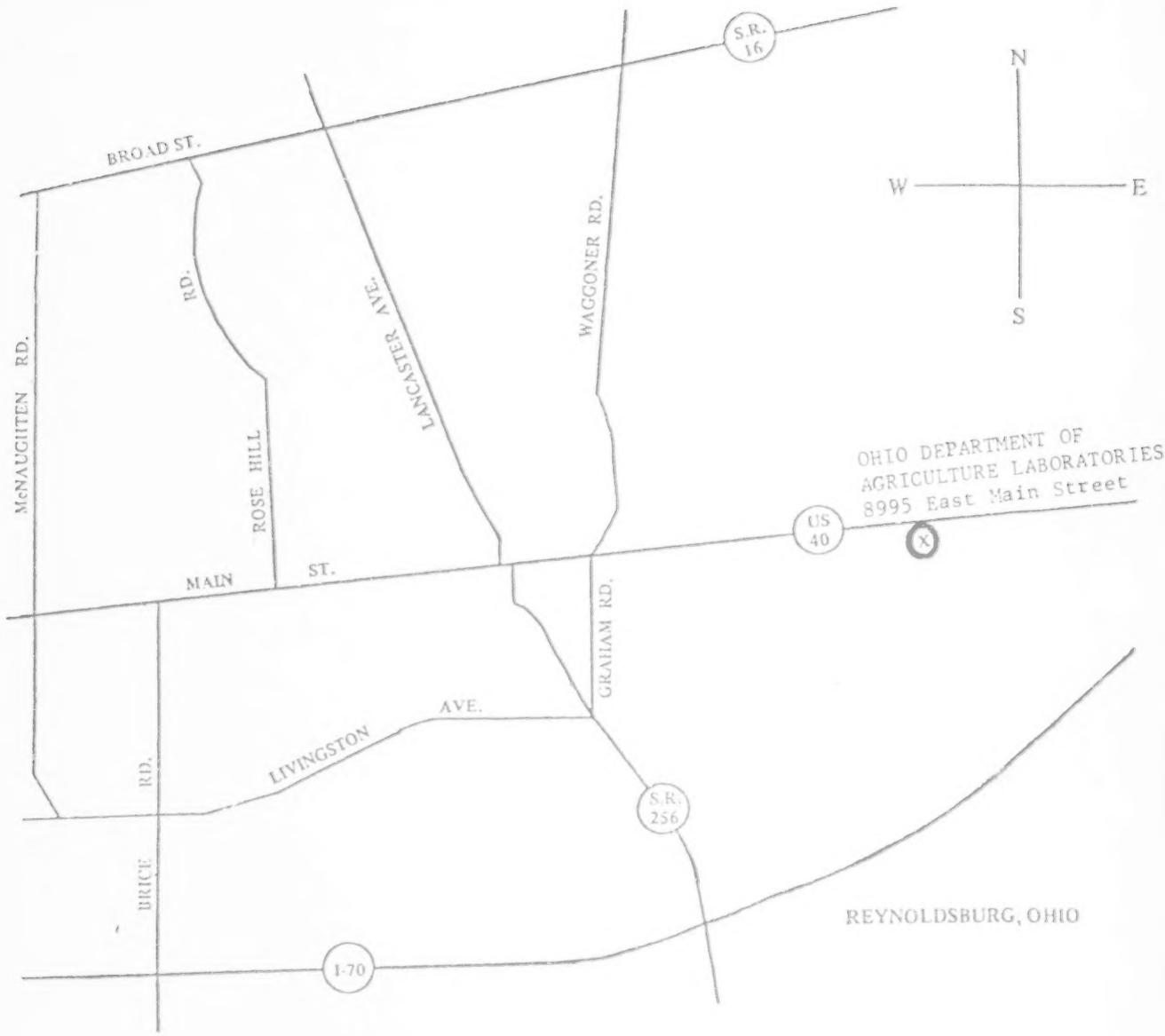
OHIO DEPARTMENT OF AGRICULTURE



1987 Executive Staff

Steve Maurer	Director	(614)466-2732
Dick Tootle	Assistant Director Chief/Plant Industry	(614)466-2732
Barbara Valentine	Administrative Assistant to the Director	(614)466-2732
Gloria Williams	Deputy Director/Personnel and EEO	(614)466-4594
Tony Logan	Deputy Director/Legal Counsel; Executive Director--AFC	(614)466-2732
Frank Neel	Deputy Director/Chief Food, Dairies & Drugs; Consumer Analytical Lab; Division of Animal Industry; Division of Meat Inspection	(614)866-6361
Bruce Litzenberg	Deputy Director/Chief Ride Safety; Grain Warehouse; Weights and Measures	(614)466-8880
Fred Arnold	Chief/Grain Warehouse	(614)466-8801
Alice Walters	Chief/Public Information	(614)466-8798
Jim Thompson	Chief/Investigations	(614)466-3732
Chris Krause	Chief/Fiscal	(614)466-4597
Lenny Cavalier	Chief Inspector/Fairs & Amusement Ride Safety	(614)462-8832
Marty Miller	Acting Chief/Markets	(614)466-8797

Sam Waltz	Chief/Meat Inspection	(614)866-6361
Victoria Ullmann	Staff Attorney; Labor Relations Coordinator	(614)466-5339
Robin A. Burton	Administrative Assistant Laboratory Coordinator	(614)866-6361
Leslie McMillan	Administrative Assistant	(614)462-8832
Jim Beier	Administrative Assistant	(614)466-5338
Jim Truex	Manager, Weights & Measures	(614)866-6361
Mike McNamara	Special Projects; Safety & Hygiene	(614)866-6361
Ed Otte	Supervisor, Computer Section	(614)466-6922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RD.
ROSE HILL
LANCASTER AVE.
WAGGONER RD.
OHIO DEPARTMENT OF
AGRICULTURE LABORATORIES
8995 East Main Street
US 40
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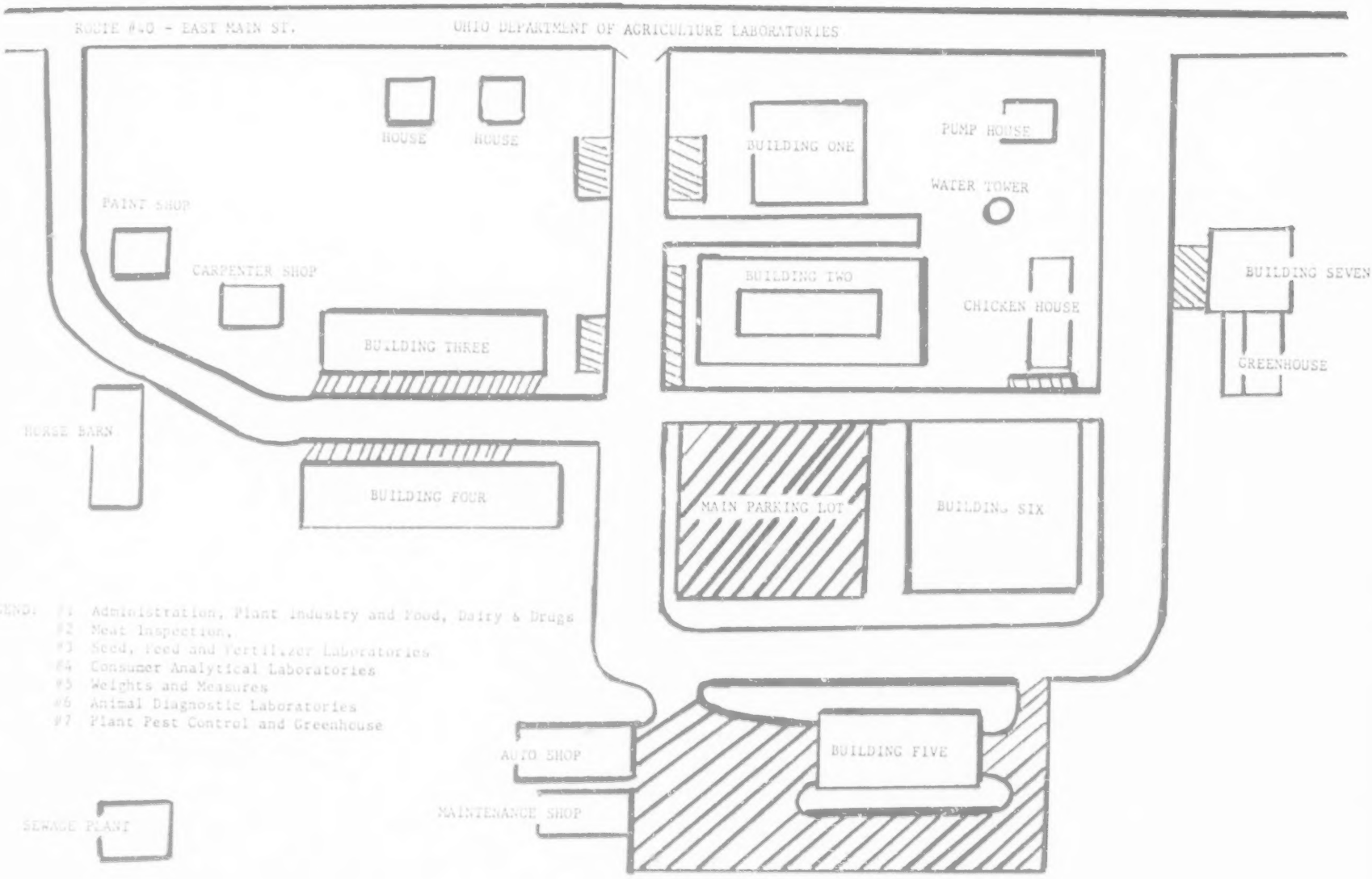
MAIN ST.
GRAHAM RD.
LIVINGSTON AVE.
RD.
S.R. 256
BRICE
REYNOLDSBURG, OHIO
I-70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CARPENTER SHOP
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HORSE BARN
BUILDING FOUR
BUILDING ONE
PUMP HOUSE
WATER TOWER
BUILDING TWO
CHICKEN HOUSE
BUILDING SEVEN
GREENHOUSE
MAIN PARKING LOT
BUILDING SIX
BUILDING FIVE
AUTO SHOP
MAINTENANCE SHOP
SEWAGE PLANT
LEGEND: #1 Administration, Plant Industry and Food, Dairy & Drugs
#2 Meat Inspection,
#3 Seed, Feed and Fertilizer Laboratories
#4 Consumer Analytical Laboratories
#5 Weights and Measures
#6 Animal Diagnostic Laboratories
#7 Plant Pest Control and Greenhouse

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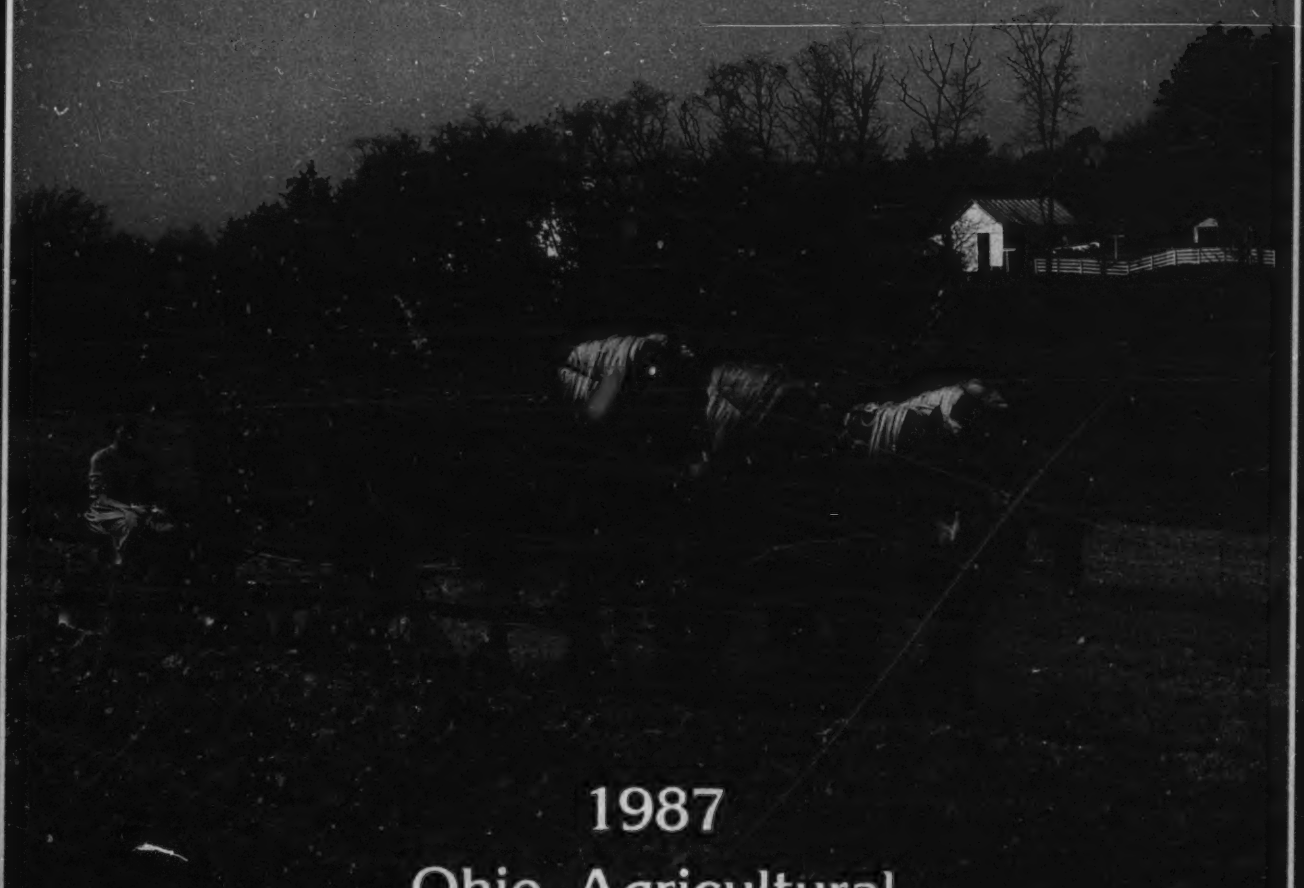

1987
Ohio Agricultural Statistics and Ohio Department of Agriculture Annual Report

RICHARD F. CELESTE
GOVERNOR

STATE OF OHIO
OFFICE OF THE GOVERNOR
COLUMBUS 43266-0601

Agriculture is the number one contributor to Ohio's economy, providing us with over 70,000 jobs. In addition, Ohioans should be proud of the abundance and diversity of our agricultural products. We lead the nation in swiss cheese production and rank second for processing tomatoes. Our farms, greenhouses, forests and nurseries continue to yield the high-quality food and fiber for which we are reknowned.

The statistics reflecting this bounty are in this publication, as well as a description of the services performed by the Ohio Department of Agriculture. The 1987 Ohio Agricultural Statistics Bulletin is published through the cooperation of this department, the Ohio Agricultural Statistics Service and the Ohio Cooperative Extension Service.

Schoolchildren and state officials alike will find this bulletin an informative and useful tool for research. I encourage you, as a rural or urban consumer, to consider the importance of agricultural production in your life. All of our forefathers tilled the soil. While we may not be farmers now, it is up to all of us to support and encourage the growth of our agricultural industry.

With Best Regards,

Richard F. Celeste

Richard F. Celeste
Governor

Ohio Department of Agriculture

Administrative Offices
65 S. Front Street
Columbus, Ohio 43215-4193
614-466-2732

Reynoldsburg Laboratory Divisions
8895 E. Main Street
Reynoldsburg, Ohio 43068-3399
614-866-6361

Richard F. Celeste, Governor
Steven D. Maurer, Director

I take great pride in presenting to you the 1987 Annual Report for the Ohio Department of Agriculture and annual data from the Ohio Agricultural Statistics Service. This report was prepared in accordance with Section 149.01 of the Ohio Revised Code.

Anyone who is interested in any aspect of Ohio agriculture will find this publication invaluable. It is the result of the combined efforts of the Department, the Agricultural Statistics Service and the Ohio Cooperative Extension Service.

At times we fail to realize the tremendous debt we owe to our farmers, in this state and across the nation. Through good and bad times they continue to supply us with world's finest, most affordable food and fiber. Agriculture also plays an important role in our economy; in Ohio, it remains our number one industry. This bulletin merely illustrates our farmers' success.

When you use this bulletin, please join me in thanking our farmers and recognizing them for their achievements.

Sincerely,

OHIO DEPARTMENT OF AGRICULTURE

Steven Maurer

Steven D. Maurer
Director

1987
OHIO AGRICULTURAL STATISTICS

Compiled by
OHIO AGRICULTURAL STATISTICS SERVICE
Room 608 Federal Building
200 North High Street
Columbus, Ohio 43215

Homer L. Carter, State Agricultural Statistician
Wayne Matthews, Deputy Statistician
Harry Delong, Editor, Chief, Estimates Section
Kim Lowery, Typist

UNITED STATES DEPARTMENT OF AGRICULTURE
NATIONAL AGRICULTURAL STATISTICS SERVICE

Charles E. Caudill, Administrator

Cooperating with

OHIO DEPARTMENT OF AGRICULTURE

Steven D. Maurer, Director
J. Anthony Logan, Assistant Director

Fredrick E. Hutchinson
Vice President for Agricultural Administration
at The Ohio State University

OHIO AGRICULTURAL RESEARCH AND DEVELOPMENT CENTER
Kirklyn Kerr, Director

OHIO COOPERATIVE EXTENSION SERVICE

Bobby D. Moser, Director

ACKNOWLEDGEMENTS

Estimates made by the Ohio Agricultural Statistics Service are based on information supplied by farmers and agri-businesses. These extimates are the results of the data collected on probability designed surveys. Considerable information is collected from farmers randomly selected for telephone or personal interviews. Data for county estimates are collected from a large mail survey and, where available, check data are used to the extent possible.

Our sincere thanks are also extended to the office staff, field and telephone interviewers of the Ohio Agricultural Statistics Service. The cover design, layout, technical assistance, and editing were provided by William C. Warren, Jr., John K. Victor and Malcolm Emmons of the Ohio Cooperative Extension Service.

Ohio Agricultural Statistics Service

Fact Finding for Agriculture

MILESTONES IN AGRICULTURAL STATISTICS

1863 Division of Statistics formed in USDA as predecessor of today's NASS.

1866 Beginning of continuous series of reports on major crops, livestock, and agricultural prices.

1896 Opening of rural free delivery mail service paves way for speedier reports from farmers and new township correspondents.

1908 Monthly reports begin on prices farmers receive for their products.

1909 Congress specifies which crops will be covered in crop report, stipulates issuance times, and requires Secretary of Agriculture to sign report. Statisticians, staff, and other workers prohibited by law from making premature disclosure of crop estimates, issuing false reports or speculating on commodity market.

1914 Commercial vegetable and cold storage reports begin.

1917 Wisconsin signs first formal agreement establishing cooperative Federal-State crop estimating program. (Agreements in effect with 48 States by 1967).

1918 Ohio signs formal agreement establishing cooperative Federal-State estimating program. Ohio Dept of Agriculture published data collected by assessors prior to this year.

1919 Annual poultry survey starts.

1926 Quarterly estimates of farm stocks of grain start.

1943 Quarterly estimates of grain stocks off farms in mills and elevators begin.

1962 Agency begins use of computers.

1971 Funds appropriated for annual farm production expenditures survey.

1978 AgRISTARS, under the leadership of NASS, developed as an interagency research program to evaluate the potential of aerospace remote sensing data in meeting USDA information needs.

1981 A cooperative agreement between NASS and University of California at Berkeley implemented to investigate computer-assisted telephone interviews.

OHIO HISTORICAL AGRICULTURAL STATISTICS

YEAR	NUMBER OF FARMS	CORN ACRES HARVESTED	SOYBEANS ACRES HARVESTED	WINTER WHEAT ACRES HARVESTED	HAY ACRES HARVESTED	OATS ACRES HARVESTED	INVENTORY CATTLE	INVENTORY HOGS	INVENTORY SHEEP
		(000)	(000)	(000)	(000)	(000)	(000)	(000)	(000)
1988							1,820		210
1987	84,000	3,180	3,980	800	1,450	250	1,800	2,150	245
1986	88,000	3,880	3,620	1,050	1,460	160	1,840	2,000	225
1985	89,000	4,230	3,870	950	1,450	310	1,835	1,980	220
1984	90,000	4,130	3,770	1,100	1,350	220	1,880	1,970	225
1983	92,000	3,060	3,280	1,200	1,260	240	1,850	2,200	250
1982	93,000	4,255	3,700	1,200	1,340	340	1,850	1,920	260
1981	94,000	4,040	3,450	1,600	1,420	270	1,815	2,050	260
1980	95,000	4,120	3,760	1,370	1,430	290	1,825	2,150	265
1979	96,000	3,830	4,080	1,320	1,440	290	1,750	2,120	290
1978	96,000	3,850	3,870	1,080	1,550	340	2,025	2,160	310
1977	97,000	3,870	3,480	1,540	1,550	370	2,250	1,750	380
1976	99,000	4,080	2,880	1,600	1,540	440	2,305	1,900	382
1975	101,000	3,575	3,100	1,680	1,510	465	2,350	1,675	404
1974	112,000	3,820	3,140	1,450	1,380	475	2,150	1,950	441
1973	113,000	3,270	3,590	800	1,500	540	2,134	2,274	481
1972	114,000	3,286	3,010	1,029	1,476	367	2,113	2,320	538
1971	116,000	3,776	2,634	944	1,550	539	2,072	2,611	575
1970	118,000	3,249	2,550	925	1,440	528	2,031	2,838	605
1969	120,000	3,013	2,475	1,017	1,415	585	2,011	2,557	617
1968	122,000	3,096	2,325	1,196	1,600	692	2,011	2,583	636
1967	124,000	3,516	2,231	1,514	1,654	494	2,052	2,557	642
1966	126,000	3,328	2,105	1,183	1,786	642	2,094	2,388	649
1965	129,000	3,295	2,044	1,258	1,853	606	2,204	2,191	662
1964	131,000	3,328	1,825	1,446	1,907	652	2,272	2,331	669
1963	135,000	3,200	1,738	1,461	1,906	767	2,295	2,619	727
1962	139,000	2,963	1,756	1,238	1,894	825	2,272	2,757	790
1961	144,000	2,718	1,722	1,457	2,005	737	2,272	2,651	832
1960	149,000	3,576	1,499	1,428	1,937	1,023	2,250	2,599	924
1959	154,000	3,687	1,455	1,264	1,977	1,100	2,228	2,707	973
1958	158,000	3,206	1,429	1,436	2,118	1,068	2,251	2,603	1,046
1957	162,000	3,206	1,404	1,436	2,154	1,101	2,345	2,479	1,036
1956	168,000	3,523	1,301	1,496	2,244	1,101	2,393	2,666	1,036
1955	174,000	3,708	1,193	1,496	2,395	1,251	2,369	2,836	1,046
1954	180,000	3,708	1,122	1,740	2,525	1,117	2,417	2,578	1,036
1953	186,000	3,531	1,007	2,384	2,606	1,044	2,347	2,302	1,036
1952	192,000	3,567	940	2,249	2,516	1,186	2,235	2,502	987
1951	200,000	3,532	1,124	1,906	2,590	1,140	2,170	3,014	940
1950	208,000	3,364	1,090	2,118	2,563	1,075	2,107	3,173	940
1949	211,000	3,617	875	2,353	2,255	1,265	2,107	3,051	979
1948	214,000	3,691	908	2,353	2,384	1,171	2,128	2,962	1,053
1947	216,000	3,386	950	2,179	2,497	714	2,150	2,962	1,132
1946	219,000	3,641	903	1,831	2,536	1,348	2,172	3,118	1,258
1945	223,000	3,468	1,077	2,129	2,560	1,162	2,239	3,182	1,430
1944	225,000	3,651	1,243	1,918	2,605	1,047	2,262	3,182	1,625
1943	230,000	3,444	1,213	1,523	2,662	1,126	2,196	4,133	1,958
1942	236,000	3,249	1,051	1,655	2,501	1,185	2,132	3,563	1,939
1941	241,000	3,217	656	1,902	2,563	1,150	2,070	3,181	1,901
1940	244,000	3,185	561	1,921	2,670	1,009	2,029	3,181	1,920
1939	248,000	3,425	500	1,904	2,428	1,009	1,991	3,420	1,920
1938	251,000	3,568	281	2,379	2,412	1,121	1,932	2,800	2,010
1937	254,000	3,796	171	2,430	2,312	1,246	1,951	2,607	2,010
1936	256,000	3,685	132	2,175	2,571	1,210	1,991	2,660	2,230
1935	257,000	3,649	124	2,131	2,555	1,407	1,951	2,333	2,256
1934	253,000	3,317	41	1,994	2,845	1,327	1,930	2,160	2,228
1933	250,000	3,681	33	2,089	2,609	1,385	1,864	3,035	2,175
1932	243,000	3,681	34	1,748	2,511	1,689	1,780	3,130	2,115
1931	234,000	3,718	47	1,861	2,614	1,723	1,680	2,485	2,060
1930	232,000	3,508	31	1,661	2,490	1,758	1,680	2,330	1,945
1929	232,000	3,473	23	1,564	2,625	1,628	1,620	2,462	1,885
1928	234,000	3,612	24	856	2,601	2,374	1,588	2,562	1,866
1927	237,000	3,344	21	1,579	2,990	1,869	1,604	2,638	1,823
1926	242,000	3,596	18	1,730	2,786	1,988	1,620	2,398	1,753
1925	245,000	3,707	17	1,599	2,918	1,968	1,653	2,220	1,745

OHIO HISTORICAL AGRICULTURAL STATISTICS

YEAR	NUMBER OF FARMS	CORN ACRES HARVESTED	SOYBEANS ACRES HARVESTED	WINTER WHEAT ACRES HARVESTED	HAY ACRES HARVESTED	OATS ACRES HARVESTED	INVENTORY CATTLE	INVENTORY HOGS	INVENTORY SHEEP
		(000)	(000)	(000)	(000)	(000)	(000)	(000)	(000)
1924	249,000	3,432	20	1,857	3,339	1,600	1,710	2,440	1,691
1923	252,000	3,653		2,062	3,247	1,517	1,770	2,950	1,694
1922	254,000	3,581		2,106	3,370	1,445	1,840	3,100	1,659
1921	256,000	3,730		2,127	3,212	1,554	1,880	2,900	1,768
1920	258,000	3,925		2,393	3,154	1,539	1,927	2,950	1,893
1919	260,000	4,047		2,922	3,027	1,452	1,990	3,084	1,930
1918	261,000	3,875		2,550	3,129	1,750	1,960	3,000	1,825
1917	262,000	4,200		2,050	3,028	1,800	2,040	2,925	1,725
1916	264,000	3,900		1,800	3,378	1,650	N/A	2,760	1,670
1915	266,000	3,800		2,075	2,903	1,600	N/A	2,845	1,856
1914	267,000	3,725		1,975	2,878	1,400	N/A	2,790	2,200
1913	268,000	3,850		1,875	3,028	1,850	1,680	2,660	2,450
1912	270,000	3,950		1,400	2,753	2,100	1,700	2,400	2,700
1911	271,000	3,900		2,150	2,778	1,650	1,740	2,450	3,000
1910	272,000	3,925		2,125	3,028	1,600	1,720	2,415	3,200
1909		4,030		1,828	3,185	1,787	1,685	2,200	3,100
1908		3,750		2,000	3,553	1,425	1,690	2,250	2,820
1907		3,800		2,200	3,250	1,600	1,720	2,430	2,645
1906		3,900		2,250	3,125	1,550	1,730	2,385	2,519
1905		3,750		2,100	3,375	1,625	1,760	2,095	2,290
1904		3,975		1,900	3,450	1,650	1,820	2,150	2,290
1903		3,900		2,250	3,350	1,400	1,902	2,250	2,411
1902		4,000		2,250	3,150	1,350	1,889	2,220	2,649
1901		3,875		2,350	3,200	1,200	1,857	2,105	2,848
1900		4,000		2,500	2,875	1,325	1,800	1,965	2,889
1899		3,860		3,209	2,971	1,115	1,715	2,035	2,860
1898		3,900		2,820	3,000	1,125	1,635	2,130	2,724
1897		3,800		2,500	3,225	1,200	1,560	2,320	2,522
1896		4,000		2,750	2,700	1,400	1,550	2,200	2,967
1895		3,775		2,650	2,925	1,225	1,654	2,195	3,491
1894		3,600		2,600	3,150	1,150	1,690	2,150	4,059
1893		3,450		2,700	3,200	1,000	1,730	2,085	4,273
1892		3,300		3,050	3,125	950	1,790	1,950	4,451
1891		3,350		2,850	3,150	1,000	1,800	2,012	4,364
1890		3,300		2,500	3,100	1,100	1,880	2,220	4,205
1889		3,350		2,400	2,950	1,300	1,950	2,400	4,205
1888		3,450		2,500	2,675	1,200	2,010	2,315	4,335
1887		3,200		3,050	2,625	1,050	2,000	2,235	4,712
1886		3,175		3,050	2,600	975	2,040	2,160	4,908
1885		3,275		2,750	2,700	975	2,015	2,110	5,453
1884		3,075		2,900	2,650	875	2,000	2,100	5,622
1883		3,050		2,950	2,600	750	1,930	2,206	5,796
1882		3,100		3,000	2,500	775	1,920	2,260	5,627
1881		3,050		3,050	2,450	725	1,970	2,400	5,463
1880		3,150		3,000	2,150	875	2,020	2,435	5,190
1879		3,282		2,556	2,190	910	2,035	2,600	4,806
1878		3,450		2,350	2,150	1,000	1,980	2,665	4,450
1877		3,425		1,900	2,175	950	1,900	2,750	4,279
1876		3,500		1,700	2,200	1,025	1,860	2,540	4,457
1875		3,250		2,150	1,850	975	1,900	2,370	4,742
1874		2,900		2,050	1,950	925	2,075	2,315	4,992
1873		2,750		1,900	2,125	850	2,160	2,395	5,311
1872		2,800		1,800	1,950	975	2,160	2,555	5,156
1871		2,850		1,700	1,825	950	2,045	2,800	4,958
1870		2,600		1,725	1,800	900	1,920	2,600	6,050
1869		2,450		1,750	1,950	800	1,885	2,250	7,378
1868		2,350		1,500	2,275	750	1,917	2,000	8,997
1867		2,400		1,400	2,075	775	1,838	2,300	8,821
1866		2,500		1,500	1,925	875		2,540	

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PROFILE OF OHIO AGRICULTURE 1987 [1]

Commodity	Unit	Ohio			State ranked first		
		Rank 2/	Prod. or inventory 3/	Value of production	State 2/	Prod. or inventory	Value of production
			Thousands			Thousands	
Field Crops							
Corn for grain	Bu.	6	362,400	634,200	Iowa	1,306,500	2,090,400
Corn for silage	Ton	9	2,560	-	Wisconsin	10,220	-
Oats	Bu.	6	17,500	26,250	S. Dakota	52,900	87,285
Wheat, winter	Bu.	12	46,400	118,320	Kansas	366,300	879,120
Rye	Bu.	17	180	450	N. Dakota	5,115	5,627
Soybeans	Bu.	6	147,260	809,930	Iowa	343,650	1,838,528
Hay, all (baled)	Ton	14	4,423	351,629	California	9,005	720,400
Sugar beets	Ton	12	267	4/	Minnesota	6,200	4/
Potatoes, all	Cwt.	21	2,254	11,045	Idaho	99,710	353,971
Tobacco: Burley (31)	Lb.	5	11,972	18,509	Kentucky	287,000	451,164
Other (42-44)	Lb.	1	72	69	Ohio	72	69
Vegetables, Fresh							
Sweet corn	Cwt.	4	1,280	16,640	Florida	4,680	67,860
Lettuce	Cwt.	12	130	5,759	California	38,870	598,598
Tomatoes	Cwt.	8	419	7,584	Florida	16,037	460,262
Celery	Cwt.	4	216	2,225	California	12,780	136,289
Onions, storage	Cwt.	10	139	1,845	Oregon	6,906	45,752
Total fresh vegetables 5/	Cwt.	12	2,558	35,104	California	108,690	1,680,299
Vegetables, Processing							
Tomatoes for processing	Ton	2	368.00	26,386	California	6,720.48	383,382
Cucumbers for processing	Ton	5	47.25	8,741	Michigan	154.10	20,804
Total Processing Vegetables	Ton	6	415.76	35,190	California	6,784.17	400,084
Fruit							
Apples	Lb.	10	150,000	23,700	Washington	4,200,000	320,000
Grapes	Ton	7	10.3	2,308	California	4,600	1,135,950
Peaches	Lb.	21	9,000	2,520	California	1,468,000	163,864
Strawberries	Cwt.	7	73	4,453	California	8,232	407,657
Grape products	Ton	7	9.8	2,058	California	3,915	782,600
Poultry and Poultry Products							
Chickens, total inv., Dec. 1, 1987	Head	5	24,600	-	California	40,700	-
Chickens - sold	Lb.	9	40,320	3,629	North Carolina	94,900	13,216
Broilers - production	Lb.	26	47,300	10,879	Arkansas	3,690,011	1,107,003
Turkey production	Lb.	16	88,400	28,288	North Carolina	918,650	312,341
Egg production, Dec. 1986-Nov. 1987	Million eggs	5	4,351	145,033	California	8,023	307,548
Livestock							
Hogs & pigs inv., Dec. 1, 1987	Head	8	2,150	-	Iowa	13,800	-
Hogs & pigs production (live wt.)	Lb.	8	789,769	397,220	Iowa	5,390,050	2,766,568
All cattle & calves inv., Jan. 1, 1988	Head	19	1,820	-	Texas	13,500	-
Cattle & calves production (live wt.)	Lb.	22	591,640	353,342	Texas	5,444,910	3,394,131
Beef cows inv., Jan. 1, 1988	Head	26	412	-	Texas	5,260	-
Milk cows inv., Jan. 1, 1988	Head	6	368	-	Wisconsin	1,790	-
Sheep & lamb inv., Jan. 1, 1988	Head	14	270	-	Texas	1,960	-
Sheep & lamb production (live wt.)	Lb.	14	17,060	12,067	Texas	115,875	79,099
Cattle slaughtered	Head	14	492.3	-	Kansas	6,265.0	-
Hogs slaughtered	Head	10	2,874.4	-	Iowa	21,262.3	-
Calves slaughtered	Head	11	109.2	-	New York	470.5	-
Sheep & lambs slaughtered	Head	18	23.9	-	Colorado	1,117.1	-
Wool	Lb.	13	1,910	1,031	Texas	16,300	19,723
Red meat production	Lb.	16	833,260	-	Iowa	5,369,720	-
Livestock slaughtering establishments, (not 000) 1/1/88	No.	4	259	-	Iowa	304	-

PROFILE OF OHIO AGRICULTURE 1987[1]

Commodity	Unit	Ohio			State ranked first		
		Rank 2/	Prod. or inventory 3/	Value of production	State 2/	Prod. or inventory	Value of production
			Thousands			Thousands	
Milk and Milk Products							
Milk production	Million lb.	7	4,810	-	Wisconsin	24,800	3,013,800
Milk-Equivalent used for MFG dairy production	Million lb.	9	1,916	-	Wisconsin	21,015	-
All cheese (excl. cottage cheese)	Lb.	11	97,953	-	Wisconsin	1,874,492	-
Swiss cheese	Lb.	1	57,553	-	Ohio	57,553	-
American type cheese	Lb.	17	20,607	-	Wisconsin	1,031,110	-
Lowfat cottage cheese	Lb.	3	16,425	-	California	59,383	-
Creamed cottage cheese	Lb.	4	42,479	-	New York	89,957	-
Cottage cheese curd	Lb.	5	24,782	-	New York	96,701	-
Ice cream	Gal.	6	43,804	-	California	108,288	-
Ice milk	Gal.	9	10,311	-	California	32,414	-
Milk sherbet	Gal.	4	2,955	-	California	4,895	-
Water ices	Gal.	8	2,195	-	New York	5,214	-
Butter	Lb.	10	13,539	-	Wisconsin	261,493	-
Manufactured dairy plants (not 000)	No.	6	81	-	Wisconsin	364	-
Miscellaneous							
Cash Receipts - 1986	Million Dol.	11	3,940	-	California	14,049	-
Number of farms 1987	No.	7	84.0	-	Texas	160.0	-
Operations with cattle	No.	10	43.0	-	Texas	146.0	-
Operations with hogs	No.	7	14.5	-	Iowa	39.0	-
Operations with sheep	No.	3	7.1	-	Iowa	11.0	-
Operations with milk cows	No.	5	10.1	-	Wisconsin	37.0	-
Honey Production	Lb.	19	2,750	1,815	S. Dakota	33,500	15,075
Fertilizer consumption 6/ (July 1986-June 1987)	Ton	9	1,768	-	Illinois	3,381	-

1/Data reported for 1987 unless noted otherwise in stub. 2/Rank among the States based on production or inventory. 3/ Thousand unless noted otherwise in stub. 4/ Not available at time of publication. 5/ Includes small quantity of processing vegetables. 6/ Preliminary.

INDEX NUMBERS OF CROP AND LIVESTOCK PRODUCTION, OHIO, 1977-87 1/

	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
Crops											
Feed grains	100	100	109	115	94	119	59	119	134	123	95
Food grains	100	58	88	93	97	71	81	67	81	67	64
Soybeans	100	105	119	111	81	109	86	113	132	120	121
Other field crops	100	93	69	83	85	99	71	98	77	56	65
Seed crops and hay	100	109	102	101	101	99	91	107	129	121	124
Vegetables, all	100	100	88	73	76	96	107	101	122	122	107
Fruit	100	180	156	240	138	196	151	171	179	120	197
Total crops	100	100	109	110	90	110	76	111	127	116	105
Livestock & Livestock Products:											
Meat animals	100	93	111	101	99	102	113	108	109	108	111
Poultry & poultry products	100	113	112	111	115	128	134	153	158	171	191
Milk	100	96	96	97	98	102	107	103	109	111	108
Wool	100	85	78	70	70	66	59	57	59	60	59
Total livestock & products	100	97	105	100	100	105	113	111	115	117	119
Total, all commodities	100	99	108	106	94	108	89	111	123	116	110

1/Base year 1977=100

1987 CROP AND WEATHER REVIEW

The 1987 season turned out to be one of the earliest in anyone's memory. Several factors contributed to the early season. The most important one was the fast and early season accumulation of an extraordinary number of growing degrees days. Crops grew quickly, matured early, dried down rapidly, harvest started early and advanced quickly.

Planting began in early April as conditions became suitable; many areas initially had too much soil moisture for planting. Soils dried at the end of April and into the middle of May. More than half of the corn acreage was planted the first two weeks of May. By May 17 over 90% of the 1987 corn acreage was planted. Soybean seeding moved at a fast pace with 90 percent of the acreage planted by the end of May compared with 70 percent in 1986. Rains came in early June and again in early July to provide enough soil moisture in major corn and soybean production areas. Crops grew very fast responding to the accumulation of growing degree days and the soil moisture. Southern Ohio, and especially the southeast, suffered from lack of adequate rainfall most of the summer and into the fall. Soil moisture supplies in these areas were so short that the few rain showers that did fall provided almost no relief to crops and grasslands. After early July, very little rain fell with any regularity anywhere in Ohio until the end of August. This extended period of dry weather ultimately reduced potential yields for many crops including corn and soybeans. Some rain at the end of the summer gave some late maturing crops a needed boost. This year crops grew to full maturity before a frost and therefore dried down very rapidly. Under these circumstances farmers sometimes found corn grain dry enough for harvest with some green showing in the leaves or stalk. Harvest for corn began in August, the earliest many people could remember. Harvest conditions were favorable throughout most of Ohio in September and October. Some of the northeast was too wet at times and harvest was slower in that area. Soybean combining was practically complete by the end of October and corn was not far behind. Most harvesting of these two crops was 2 to 3 weeks earlier than usual. Winter wheat seeding was also accomplished earlier than usual, or not at all. Many areas of the northeast remained too wet to plant during the fall season.

April 1987 provided above normal temperatures, particularly during the last half of the month. This helped soils dry and improved planting conditions. Planting progress kept pace with earlier years as farmers worked between the April showers. Precipitation for April statewide measured only 83 percent of normal but periodic rains kept field activities on a stop and go schedule with only a little over 10 days suitable for fieldwork.

During May fields dried; precipitation was only 89 percent of normal. Only central Ohio had above normal rainfall. Temperatures were above normal most of May which allowed for the rapid accumulation of Growing Degree Days (GDD). There were 25 percent more GDDs than normal at the end of May; about 10 days ahead of schedule. May also provided almost 22 days suitable for fieldwork.

June weather brought above normal rainfall to Ohio except the southeast. The rain along with the continued rapid accumulation of GDDs pushed crop development far beyond normal expectations. GDD totals for April through June ranged from 1200 to almost 1600; 200 to 300 units above normal or almost 2 weeks ahead of normal. Half the wheat was ripe at the end of June 1987 versus only a quarter on the average. Some corn fields were already tasseling at the end of June; statewide average corn development was 12 leaves fully emerged.

During July rainfall was subnormal in the northwest, south and east; elsewhere above normal amounts fell. GDD's continued to add up at a pace of 10 to 20 percent above average. There were a few stressfully high temperatures; readings of above 86 degrees do not increase the accumulation of degree days. The real generator of GDD's throughout most of the summer was the above normal overnight lows.

August brought more dry weather to the south, many areas only 50 percent of normal, and wetter than normal weather to the north, more than 50 percent above normal. Corn for grain harvest began the last week of August; earlier than anyone could remember harvest starting. There were more than 25 days suitable for fieldwork but these were distributed only as well as the rain. Farmers in the north had great difficulty cutting and curing hay; some forage was diverted into silage when it could not be cured as hay.

September was dry with rainfall 63 percent of normal statewide. the northeast, already suffering from too much rain, had above normal precipitation. Farmers made great progress harvesting corn and soybeans as quickly as the crops were ready. Grain mositure was quite low and very little supplementary drying was necessary.

October rainfall patterns were the same as the previous month with rainfall 77 percent of normal except the northeast which was 22 percent above normal. This permitted most farmers to harvest crops rapidly and follow quickly with winter wheat seedings except in the northeast where wet conditions delayed progress. Major farm activities including corn and soybean harvest and winter wheat seeding were practically completed by the first week of November, almost a month earlier than usual.

OHIO CROP VALUES

The total value of production of all crops estimated in Ohio totaled $2.1 billion in 1987, an increase of almost 5 percent from 1986 and 19 percent less than the 1985 value. Most of the difference between 1985 and 1987 was caused by less corn production and a lower price in 1987. Generally the unit price for most major field crops increased from a year earlier. This price increase along with greater production both boosted value of production. The major exception was corn. Although price for 1987, at $1.75 per bushel, was up from the 1986 price of $1.50, the lower production more than offset the favorable price

change. Corn value of production fell 11 percent. Soybean value of production nudged corn out of first place for only the third time; the years were 1978, 1983, and 1987. In 1986 preliminary data indicated soybeans were in first place however downward revision in production took soybeans out of the top position.

Fruit value of production increased based almost entirely on higher output because unit prices declined for apples and peaches. Grape production and price both increased. Fresh market vegetable value of production declined 21 percent; mostly because of lower production and price of tomatoes. Sweet corn and celery value of production also declined because of lower unit prices. Lettuce value of production increased because of higher output and price.

Processing vegetables value of production for tomatoes and cucumbers declined because of less output and lower unit price from 1986 to 1987.

OHIO VEGETABLE PRODUCTION

Production of fresh market and processing vegetables including strawberries totaled 10,946,00 hundredweight (cwt) in 1987. This was down 7 percent from a year ago. Lower total production for the crops estimated resulted from smaller outputs of dry onions, fresh tomatoes and processing crops of tomatoes and cucumbers. Harvested acreage totaled 44,490 which was up 6 percent. Farm value of the vegetable crops totaled $74.7 million, down 14 percent from the 1986 value of $87.3 million. Early plantings and high mid season temperatures brought bountiful supplies of sweet corn. Ohio 1987 strawberry production rebounded from a year earlier with an output of 73.0 million pounds, an increase of 28 percent. This was still 21 percent below 1985. Harvested acreage totaled 1,400 in 1987 down 100 acres from 1986 and 300 acres less than 1985. Crop yields averaged 52 cwt per acre returning to a more normal level after the low level of 38 cwt in 1986 and were only 2 cwt less than the 1985 yield. Although the price received was unchanged at 61.0 cents per pound, the value of the crop totaled $4.5 million, advancing 28 percent from 1986 but remaining 19 percent under 1985. You pick sales continued down with 64 percent sold in that manner in 1987 compared with 66 percent in 1986 and 69 percent in 1985. Wholesale sales movement represented 9 percent in 1987 and retail sales 27 percent. The retail sales percentage advanced 6 points from 1985 while wholesale sales remained nearly unchanged.

The early fresh market tomato crop was about normal. However, the later tomato crop, mainly the "green pack" crop, was affected by above normal temperatures at mid season. The net result was smaller yields.

Processing tomato harvested acreage advanced 1,200 acres to 16,000 in 1987. Despite the larger acreage, total production was down 4 percent because yield per acre was down 3 tons to 23.00 tons per acre.

The processing tomato price received was down $2.60 per ton to $71.70. This brought the farm value to $26.4 million, a reduction of 8 percent from 1986. The cucumber for pickle crop farm value totaled $8.7 million in 1987 which was 20 percent less than a year ago. This reflects no change in havested acreage at 4,500 acres. Yield was down 17 percent to 10.50 tons and the prices received at $185.00 per ton was down $7.00.

OHIO FRUIT PRODUCTION

Ohio's 1987 apple output totaled 150.0 million pounds. This output advanced by two-thirds from 1986 and held slightly 3 percent above the 1985 output. Early season weather conditions were nearly ideal for fruit set. As the season advanced, there were some near misses with frost damage but for the most part, little if any occurred. In late July, August and September, above normal temperatures and limited rainfall caused some concern about fruit sizing and excessive, premature fruit drop. These factors did limit fruit output. Peach production totaled 9.0 million pounds in 1987. This compared with three years earlier when frost drastically limited commercial production. The early growing season was favorable with little or no frost damage. The 1987 crop generated $2.5 million which represented a return of 28.0 cents per pounds. For the first time in many years a small quantity of Ohio peaches were used for processing.

Grape production in Ohio totaled 10,300 tons in 1987. This was 29 percent more than the 8,000 tons produced in 1986 and 47 perent more than the 7,000 tons produced in 1985. Ohio's grapes are mainly the concord cultivar accounted for 86 percent of the output in 1987, and 80 percent in 1986 and 1985. Most of Ohio's production was utilized as juice with 80 percent of the total crop going to those presses in 1987; 15 percent was used as wine and 5 percent as fresh use.

ANNUAL SUMMARY: CROP PRODUCTION AND VALUE
OHIO 1985-1987, U. S. 1987 1/

Crop	Ohio	Ohio	Ohio	Ohio	U.S.	Ohio	Ohio	Ohio	Ohio	U.S.	Unit 9/
	Acres planted 1987	Acres harvested 1985	Acres harvested 1986	Acres harvested 1987	Acres harvested 1987	Yield per acre 1985	Yield per acre 1986	Yield per acre 1987	Yield per acre 1987		
	Thou.	Thousand acres									
All Corn	3,200										
Corn for Grain		4,030	3,720	3,020	59,167	127.0	128.0	120.0	119.4		Bu.
Corn for Silage		200	160	160	5,872	17.0	17.0	16.0	14.6		Ton
Winter Wheat	850	950	1,050	800	39,317	62.0	46.0	58.0	39.8		Bu.
All Wheat	850	950	1,050	800	55,930	62.0	46.0	58.0	37.6		Bu.
Soybeans for Beans	4,000	3,870	3,620	3,980	56,437	41.5	40.5	37.0	33.7		Bu.
Oats	350	310	160	250	6,925	85.0	76.0	70.0	54.0		Bu.
Rye	50	4	5	5	683	43.0	35.0	36.0	28.9		Bu.
Potatoes-Fall	10.3	10.4	9.7	9.8	1,282.1	270	260	230	301		Cwt.
Sugar Beets	16.8	12.7	15.0	16.2	1,255.4	20.3	20.6	16.5	22.3		Ton
Tobacco-Miami V.(41-44)		0.82	0.32	0.05	7.05	2,050	1,595	1,440	1,897		Lb.
-Burley (31)		7.10	7.10	7.30	234.8	2,150	1,840	1,640	1,897		Lb.
- Total all types		7.92	7.42	7.35	590.4	2,140	1,829	1,639	2,026		Lb.
All Hay		1,450	1,460	1,450	60,748	3.17	2.95	3.05	2.46		Ton
Alfalfa		700	730	725	25,485	4.00	3.70	3.70	3.32		Ton
All Other Hay		750	730	725	35,263	2.40	2.20	2.40	1.83		Ton
Strawberries	1.4	1.7	1.5	1.4	44.6	54	38	52	249		Cwt.
Apples - Commercial 4/		10.0	10.0	10.1	463.0	14,500	9,000	14,900	21,500		Lb.
Peaches 4/		1.0	1.0	1.0	187.0	8/	2,500	9,000	13,000		Lb.
Grapes 4/		2.3	2.0	1.9	761.0	3.04	4.00	5.42	6.97		Ton
Sweet Corn	16.5	15.2	15.4	16.0	189.6	78	82	80	81		Cwt.
Celery	0.55	0.45	0.47	0.45	33.6	460	450	480	533		Cwt.
Lettuce	1.3	0.9	0.9	1.0	221.3	135	110	130	259		Cwt.
Onions 5/	0.49	0.49	0.49	0.47	120.4	450	345	295	365		Cwt.
Tomatoes (fresh)	2.9	2.3	2.5	2.7	128.6	250	270	155	243		Cwt.
Fresh Market 6/	23.74	20.94	20.86	22.32	1,101.6	-	-	-	-		Cwt.
Tomatoes (processing)	16.5	15.9	14.8	16.0	256.6	25.47	26.00	23.00	29.60		Ton
Cucumbers (processing)	4.8	4.8	4.5	4.5	108.2	12.60	12.72	10.50	5.82		Ton
Processing 7/	21.57	20.96	19.56	20.77	1,307.9	-	-	-	-		Ton

1/Data for the United States, where applicable, include all seasonal groups and are rounded to conserve space.
2/Price per unit for Ohio and U.S. grain and hay crops obtained from Crop Values, January 1988. Revisions available January 1989.
3/Not available at time of publication
4/Utilized production.
5/When computing Ohio crop values, 15,000 cwt., 15,000 cwt., and 20,000 cwt. were shrinkages in 1985, 1986, and 1987. U.S. shrinkage in 1987 was 5,068,000 cwt. Value of crop based on sales to December 1, 1987.
6/Includes processing totals of dual usage crops and crops not published separately.
7/Processing crops price per unit includes all payments to the growers, including the cost of materials and services provided by the contractor to get the commodity to the plant door. Processing vegetable total includes minor crop acreages not published separately.
8/No significant production due to frost.
9/For yield and production.

ANNUAL SUMMARY: CROP PRODUCTION AND VALUE
OHIO 1985-1987, U. S. 1987 1/

	Ohio			U.S.	Ohio		U.S.	Ohio		U.S.
	Production				Price per unit 2/			Value of production		
	1985	1986	1987	1987	1986	1987	1987	1986	1987	1987
	Thousands				Dollars			Thousand dollars		
All Corn										
Corn for Grain	511,810	476,160	362,400	7,064,143	1.50	1.75	1.69	714,240	634,200	12,129,690
Corn for Silage	3,400	2,720	2,560	85,586	-	-	-	-	-	-
Winter Wheat	58,900	48,300	46,400	1,562,896	2.39	2.55	2.47	115,437	118,320	3,886,297
All Wheat	58,900	48,300	46,400	2,105,200	2.39	2.55		115,437	118,320	
Soybeans for Beans	160,605	146,610	147,260	1,904,712	4.86	5.50	5.43	712,525	809,930	10,364,516
Oats	26,350	12,160	17,500	373,765	1.15	1.50	1.56	13,984	26,250	581,382
Rye	172	175	180	19,718	2.50	2.50	1.48	438	450	28,891
Potatoes-fall	2,806	2,522	2,254	385,774	6.00	4.90	4.47	15,132	11,045	1,701,580
Sugar Beets	258	309	267	27,999	29.80	3/	3/	9,208	3/	3/
Tobacco -Miami	1,681	510	72	13,372	.890	.960	.721	454	69	9,645
-Burley	15,265	13,064	11,972	445,510	1.564	1.546	1.563	20,432	18,509	685,142
Total all types	16,946	13,574	12,044	1,196,086	1.539	1.543	1.570	20,886	18,578	1,877,483
All Hay	4,600	4,307	4,423	149,142	64.50	79.50	66.40	277,802	351,629	9,103,346
Alfalfa	2,800	2,701	2,683	84,554	-	-	-	-	-	-
All Other Hay	1,800	1,606	1,740	64,588	-	-	-	-	-	-
Strawberries	92	57	73	11,117	61.00	61.00	49.40	3,477	4,453	549,082
Apples 4/	145,000	90,000	150,000	9,628,400	.174	.158	.095	15,660	23,700	919,060
Peaches 4/	8/	2,500	9,000	2,301,200	.290	.280	.142	725	2,520	326,087
Grapes 4/	7	8	10.3	5,191	220.00	224.00	249.00	1,762	2,308	1,291,312
Sweet Corn	1,186	1,263	1,280	15,400	13.50	13.00	13.00	17,051	16,640	200,769
Celery	207	212	216	17,914	13.00	10.30	11.00	2,756	2,225	197,340
Lettuce	122	99	130	57,292	33.80	44.30	14.88	3,346	5,759	846,298
Onions 5/	221	169	139	43,929	14.30	15.50	11.40	2,202	1,845	444,484
Tomatoes (fresh)	575	675	419	31,245	25.70	18.10	25.70	17,348	7,584	803,878
Fresh market	2,839	2,886	2,558	218,190	-	-	-	44,158	35,104	3,345,415
Tomatoes (processing)	405.0	384.8	368.0	7,596.6	74.30	71.70	59.00	28,591	26,386	448,565
Cucumbers (processing)	60.5	57.2	47.3	630.0	192.00	185.00	181.00	10,990	8,741	113,805
Processing 7/	466.3	442.7	415.8	12,210.6	-	-	-	39,665	35,190	939,402

OHIO CROP RECORDS: ACREAGE, YIELD AND PRODUCTION

Crop	Date series began	Record 1/	Harv. acreage		Yield		Total production		Unit
			Acreage	Year	Yield	Year	Production	Year	
			Thousand				Thousand		
Corn for grain	1919	High	4,030	1985	128.0	1986	511,810	1985	Bu.
		Low	2,537	1961	27.5	1930	75,598	1924	Bu.
Corn for silage	1919	High	285	1981	17.0	1987	4,000	1982	Ton
		Low	106	1935	5.4	1930	823	1933	Ton
Soybeans for beans	1924	High	4,080	1979	41.5	1985	160,605	1985	Bu.
		Low	17	1925	11.5	1926	207	1926	Bu.
Wheat	1866	High	3,209	1899	62.0	1985	72,380	1977	Bu.
		Low	800	1987	6.0	1900	9,000	1866	Bu.
Oats	1866	High	2,374	1928	85.0	1985	92,400	1912	Bu.
		Low	160	1986	20.0	1890	12,160	1986	Bu.
Barley 2/	1866	High	318	1928	54.0	1972	8,427	1928	Bu.
		Low	8	1980	15.0	1933	332	1934	Bu.
Rye	1866	High	200	1913	43.0	1985	2,700	1913	Bu.
		Low	4	1985	10.0	1896	150	1981	Bu.
Popcorn 3/	1935	High	30.0	1945	3,550.0	1976	66,740	1976	Lb.
		Low	4.0	1935	1,150.0	1936	7,000	1935	Lb.
Alfalfa hay	1919	High	1,052	1955	4.00	1985	2,800	1985	Ton
		Low	93	1920	1.30	1930	188	1919	Ton
Other hay	1964	High	1,080	1968	2.40	1987	2,100	1973	Ton
		Low	725	1987	1.49	1965	1,328	1965	Ton
All hay	1866	High	3,553	1908	3.17	1985	4,898	1916	Ton
		Low	1,260	1983	0.60	1895	1,755	1895	Ton
Red clover seed 3/	1919	High	352.0	1944	95	1978	15,800	1951	Lb.
		Low	10.0	1981	25	1926	700	1981	Lb.
Apples	1934	High					7,886	1937	Bu.
		Low					780	1945	Bu.4/
Peaches	1899	High					3,800	1901	Bu.
		Low					15	1982	Bu.5/
Grapes 6/	1909	High					34.4	1935	Ton
		Low					4.9	1945	Ton
Maple Sirup 3/	1916	High					1,103	1918	Gal.
		Low					35	1973	Gal.
Potatoes - total	1866	High	225.0	1895	270	1985	12,269	1909	Cwt.
		Low	9.7	1986	27	1881	2,118	1981	Cwt.
Sugar beets 7/	1924	High	51.0	1938	21.7	1971	896	1971	Ton
		Low	9.5	1931	5.8	1937	72	1943	Ton
Burley tobacco	1919	High	25.0	1919	2,680	1970	28,350	1982	Lb.
		Low	6.7	1971	715	1935	6,435	1935	Lb.
All tobacco	1866	High	106	1909	2,496	1970	94,575	1918	Lb.
		Low	7.35	1987	620	1875	12,450	1874	Lb.

1/In case of ties, most recent year designated as record year. 2/Estimates discontinued in 1981. 3/Estimates discontinued in 1982. 4/ 42 lbs. 5/ 48 lbs. 6/Utilized production. 7/No acres contracted in 1982.

OHIO AGRICULTURAL STATISTICS DISTRICTS

OHIO COUNTY ESTIMATES, 1986-1987
NUMBER OF FARMS, LAND IN FARMS, AVERAGE SIZE OF FARM

County & District	Number of Farms 1986	Number of Farms 1987	Average size of Farm 1986	Average size of Farm 1987	Land in farms 1986	Land in farms 1987
	Number		Acres		Thousand Acres	
Allen	1,150	1,090	175	183	201	199
Defiance	1,030	980	210	217	216	213
Fulton	1,250	1,200	182	187	227	224
Hancock	1,270	1,210	232	241	295	292
Henry	1,250	1,200	195	200	244	241
Lucas	560	530	157	164	88	87
Paulding	770	730	297	310	229	226
Putnam	1,540	1,460	188	197	290	287
Van Wert	950	900	265	277	252	249
Williams	1,050	1,000	208	215	218	215
Wood	1,480	1,400	216	226	320	317
District 1	12,300	11,700	210	218	2,580	2,550
Ashland	1,150	1,100	169	174	194	191
Crawford	980	940	233	239	228	225
Erie	520	500	192	196	100	98
Huron	1,060	1,020	235	240	249	245
Lorain	1,050	1,000	141	146	148	146
Ottawa	640	610	191	197	122	120
Richland	1,140	1,100	168	171	191	188
Sandusky	1,050	1,000	205	212	215	212
Seneca	1,500	1,450	207	210	310	305
Wyandot	810	780	288	295	233	230
District 2	9,900	9,500	201	206	1,990	1,960
Ashtabula	1,340	1,280	143	148	191	190
Columbiana	1,200	1,150	133	138	160	159
Cuyahoga	190	180	37	39	7	7
Geauga	620	590	124	129	77	76
Lake	280	270	64	67	18	18
Mahoning	770	740	117	120	90	89
Medina	1,230	1,180	107	111	132	131
Portage	980	940	119	123	117	116
Stark	1,450	1,390	114	119	166	165
Summit	320	310	63	65	20	20
Trumbull	1,090	1,040	112	116	122	121
Wayne	2,030	1,930	138	144	280	278
District 3	11,500	11,000	120	125	1,380	1,370
Auglaize	1,230	1,180	183	188	225	222
Champaign	1,080	1,040	220	226	238	235
Clark	900	860	220	227	198	195
Darke	2,250	2,150	156	161	352	347
Hardin	1,180	1,130	230	236	271	267
Logan	1,070	1,030	217	223	232	230
Mercer	1,580	1,500	177	184	280	276
Miami	1,210	1,160	169	173	204	201
Shelby	1,200	1,150	192	197	230	227
District 4	11,700	11,200	191	196	2,230	2,200
Delaware	990	950	197	202	195	192
Fairfield	1,250	1,200	184	189	230	227
Fayette	670	640	364	377	244	241
Franklin	910	680	199	204	141	139
Knox	1,330	1,270	174	180	232	229
Licking	1,520	1,460	176	181	268	264
Madison	770	740	364	373	280	276
Marion	830	800	271	278	225	222
Morrow	980	940	179	183	175	172
Pickaway	840	800	349	361	293	289
Ross	910	870	292	301	266	262
Union	1,100	1,050	228	235	251	247
District 5	11,900	11,400	235	242	2,800	2,760

OHIO COUNTY ESTIMATES, 1986-1987
NUMBER OF FARMS, LAND IN FARMS, AVERAGE SIZE OF FARM

County & District	Number of Farms 1986	Number of Farms 1987	Average size of Farm 1986	Average size of Farm 1987	Land in farms 1986	Land in farms 1987
	Number		Acres		Thousand Acres	
Belmont	840	800	163	170	137	136
Carroll	840	800	155	161	130	129
Coshocton	980	940	202	209	198	196
Harrison	570	540	216	226	123	122
Holmes	1,600	1,530	124	129	199	197
Jefferson	550	520	142	148	78	77
Tuscarawas	1,120	1,070	147	152	165	163
District 6	6,500	6,200	158	165	1,030	1,020
Butler	1,130	1,070	150	157	169	168
Clermont	1,110	1,060	107	111	119	118
Clinton	1,020	970	227	237	232	230
Greene	1,040	990	190	198	198	196
Hamilton	280	270	107	111	30	30
Montgomery	1,100	1,040	113	118	124	123
Preble	1,360	1,300	160	166	218	216
Warren	1,060	1,000	151	159	160	159
District 7	8,100	7,700	154	161	1,250	1,240
Adams	1,580	1,500	134	139	212	208
Brown	1,870	1,780	121	125	227	223
Gallia	850	810	149	154	127	125
Highland	1,580	1,500	166	173	263	259
Jackson	490	470	165	170	81	80
Lawrence	530	500	145	152	77	76
Pike	590	560	188	195	111	109
Scioto	710	680	144	147	102	100
District 8	8,200	7,800	146	151	1,200	1,180
Athens	630	600	175	180	110	108
Guernsey	970	920	159	165	154	152
Hocking	460	440	133	136	61	60
Meigs	560	530	186	192	104	102
Monroe	790	750	173	180	137	135
Morgan	680	640	175	183	119	117
Muskingum	1,220	1,160	179	186	218	216
Noble	670	640	179	184	120	118
Perry	700	660	146	152	102	100
Vinton	210	200	248	255	52	51
Washington	1,010	960	161	168	163	161
District 9	7,900	7,500	170	176	1,340	1,320
STATE	88,000	84,000	180	186	15,800	15,600

NUMBER OF FARMS, LAND IN FARMS, AND AVERAGE SIZE FARM, OHIO AND UNITED STATES, 1979-87

Year	Number of farms 1/		Land in farms		Average size farm	
	Ohio	U.S.	Ohio	U.S.	Ohio	U.S.
	Number		Thousand acres		Acres	
1979	96,000	2,432,300	16,300	1,042,015	170	428
1980	95,000	2,432,510	16,200	1,038,885	171	427
1981	94,000	2,433,920	16,100	1,034,190	171	425
1982	93,000	2,400,550	16,000	1,027,795	172	428
1983	92,000	2,370,200	15,900	1,024,195	173	432
1984	90,000	2,328,400	15,800	1,019,378	176	438
1985	89,000	2,274,730	15,800	1,014,383	178	446
1986	88,000	2,211,920	15,800	1,007,643	180	456
1987	84,000	2,173,410	15,600	1,002,463	186	461

1/ A farm is defined as a place with annual sales of agricultural commodities of $1,000 or more.

OHIO COUNTY ESTIMATES, 1986-1987
CORN FOR GRAIN: ACRES, YIELD AND PRODUCTION

County & District	Acreage Harvested		Yield		Production	
	1986	1987	1986	1987	1986	1987
	Acres		Bu. per acre		Bushels	
Allen	53,800	45,800	139.6	134.2	7,511,600	6,148,000
Defiance	31,100	27,400	121.4	91.5	3,775,000	2,506,400
Fulton	89,000	72,600	139.6	107.4	12,426,300	7,796,400
Hancock	70,800	56,800	150.1	117.2	10,628,500	6,658,400
Henry	66,600	52,500	145.0	105.4	9,655,200	5,533,500
Lucas	26,300	20,400	147.2	108.4	3,871,200	2,211,000
Paulding	49,600	42,000	141.1	113.1	6,999,700	4,751,100
Putnam	62,700	50,200	139.4	116.2	8,737,800	5,833,900
Van Wert	72,300	59,900	149.1	135.2	10,783,400	8,100,200
Williams	51,200	41,900	119.9	93.5	6,138,900	3,916,300
Wood	95,700	73,300	139.8	108.4	13,377,600	7,944,400
DISTRICT 10	669,100	542,800	140.3	113.1	93,905,200	61,399,600
Ashland	48,400	36,100	117.6	120.3	5,692,300	4,344,000
Crawford	62,000	50,400	137.1	133.4	8,500,400	6,721,700
Erie	32,300	26,800	131.3	135.4	4,242,000	3,628,000
Huron	60,700	49,900	123.0	130.4	7,468,400	6,504,900
Lorain	27,900	23,400	112.7	110.3	3,144,600	2,581,200
Ottawa	21,000	16,300	130.3	115.3	2,737,200	1,879,700
Richland	45,400	36,700	129.3	124.6	5,871,600	4,571,700
Sandusky	64,400	50,600	135.7	130.4	8,739,800	6,596,200
Seneca	74,200	62,300	141.4	125.3	10,490,800	7,809,000
Wyandot	55,200	46,100	145.1	130.1	8,006,800	5,999,300
DISTRICT 20	491,500	398,600	132.0	127.0	64,893,900	50,635,700
Ashtabula	21,800	21,600	100.4	112.7	2,188,900	2,433,600
Columbiana	30,500	23,900	125.6	114.6	3,830,100	2,739,600
Cuyahoga	*	*	*	*	*	*
Geauga	10,600	8,700	92.6	104.8	981,200	912,000
Lake	*	*	*	*	*	*
Mahoning	19,300	14,000	122.5	118.5	2,364,900	1,658,800
Medina	27,400	23,300	104.3	108.8	2,858,000	2,533,900
Portage	26,100	23,100	108.8	115.6	2,839,500	2,670,500
Stark	42,000	35,600	122.9	121.8	5,161,400	4,335,300
Summit	3,900	2,900	120.5	119.5	470,000	346,600
Trumbull	17,700	17,000	114.4	121.5	2,024,100	2,065,300
Wayne	75,200	59,600	123.5	117.6	9,290,900	7,007,200
Other Counties	2,600	2,600	92.7	99.8	241,000	259,600
DISTRICT 30	277,100	232,300	116.4	116.1	32,250,000	26,962,400
Auglaize	58,100	46,300	139.1	133.0	8,082,900	6,158,900
Champaign	84,600	72,800	131.3	126.1	11,109,000	9,180,800
Clark	69,400	54,500	136.1	126.2	9,444,200	6,876,500
Darke	108,400	85,800	129.4	132.0	14,028,200	11,329,500
Hardin	77,400	64,700	129.3	122.7	10,009,600	7,939,300
Logan	63,200	51,500	126.3	126.2	7,983,800	6,498,000
Mercer	69,000	57,100	137.2	133.0	9,463,400	7,595,500
Miami	63,200	48,200	133.0	129.5	8,404,800	6,242,200
Shelby	51,800	43,900	128.3	132.2	6,648,200	5,802,100
DISTRICT 40	645,100	524,800	132.0	128.9	85,174,100	67,622,800
Delaware	49,800	41,400	115.6	112.1	5,755,200	4,642,500
Fairfield	74,800	63,300	131.2	115.2	9,816,400	7,291,200
Fayette	80,500	71,800	126.3	126.9	10,170,200	9,111,300
Franklin	41,500	31,600	114.6	112.7	4,755,300	3,562,400
Knox	58,000	44,000	122.6	113.2	7,110,100	4,982,200
Licking	62,400	51,100	122.5	113.5	7,644,600	5,801,300
Madison	88,900	70,800	127.3	126.9	11,318,600	8,982,700
Marion	69,100	54,300	130.5	125.2	9,018,300	6,799,200
Morrow	45,100	35,300	123.6	115.2	5,573,700	4,066,000
Pickaway	99,400	77,300	111.6	117.1	11,097,700	9,054,700
Ross	64,500	50,400	108.7	111.3	7,011,800	5,608,500
Union	68,400	52,000	117.5	121.0	8,038,700	6,294,200
DISTRICT 50	802,400	643,300	121.3	118.4	97,310,600	76,196,200

OHIO COUNTY ESTIMATES, 1986-1987
CORN FOR GRAIN: ACRES, YIELD AND PRODUCTION

County & District	Acreage Harvested		Yield		Production	
	1986	1987	1986	1987	1986	1987
	Acres		Bu. per acre		Bushels	
Belmont	4,100	2,900	120.7	95.2	494,800	276,000
Carroll	16,900	12,700	111.7	100.2	1,888,000	1,272,000
Coshocton	39,900	32,100	131.7	123.2	5,253,400	3,954,600
Harrison	4,700	4,600	104.8	115.2	492,700	529,800
Holmes	30,900	27,300	118.7	115.2	3,667,700	3,144,500
Jefferson	4,900	3,500	100.7	106.2	493,600	371,600
Tuscarawas	31,000	25,000	125.7	117.2	3,896,000	2,929,600
DISTRICT 60	132,400	108,100	122.3	115.4	16,186,200	12,478,100
Butler	50,200	38,600	110.6	121.2	5,550,000	4,680,000
Clermont	17,200	12,700	114.4	118.7	1,968,300	1,507,000
Clinton	92,800	73,200	139.7	134.1	12,969,600	9,813,100
Greene	78,800	66,200	137.5	127.2	10,838,700	8,417,900
Hamilton	4,900	4,300	121.2	123.2	594,000	529,800
Montgomery	35,200	30,500	120.3	117.3	4,233,000	3,577,800
Preble	85,000	71,100	122.2	133.1	10,386,500	9,461,500
Warren	48,000	38,800	122.2	117.8	5,865,300	4,570,900
DISTRICT 70	412,100	335,400	127.1	126.9	52,395,400	42,558,000
Adams	22,900	19,200	110.7	88.7	2,534,500	1,702,200
Brown	41,800	34,700	120.3	100.3	5,026,700	3,480,400
Gallia	5,200	3,400	102.7	79.0	533,800	268,700
Highland	73,300	63,200	126.1	113.7	9,244,800	7,188,400
Jackson	8,000	6,500	113.8	107.5	910,000	699,000
Lawrence	2,400	1,800	117.4	94.8	281,700	170,600
Pike	18,000	15,200	106.6	85.8	1,918,200	1,304,500
Scioto	13,200	8,500	107.5	92.5	1,419,600	786,400
DISTRICT 80	184,800	152,500	118.3	102.3	21,869,300	15,600,200
Athens	5,500	4,200	83.9	79.9	461,300	335,700
Guernsey	6,400	4,200	116.5	101.9	745,400	428,100
Hocking	7,200	6,900	125.3	126.9	902,000	875,600
Meigs	6,900	4,600	81.6	72.0	563,200	331,000
Monroe	2,800	2,600	100.5	100.9	281,500	262,400
Morgan	6,700	5,900	117.1	91.9	784,900	542,400
Muskingum	30,800	21,900	125.4	120.1	3,862,900	2,630,600
Noble	2,600	1,700	92.6	95.9	240,700	163,100
Perry	23,300	18,500	124.4	118.6	2,899,100	2,193,300
Vinton	2,100	1,700	99.0	119.9	208,000	203,800
Washington	11,200	10,000	109.5	98.1	1,226,300	981,000
DISTRICT 90	105,500	82,200	115.4	108.8	12,175,300	8,947,000
STATE	3,720,000	3,020,000	128.0	120.0	476,160,000	362,400,000

* Counties with less than 1,000 acres not published. Counties with more than 1,000 acres are published, if necessary, to preserve the confidentiality of counties with less than 1,000 acres.

CORN SILAGE: HARVESTED ACREAGE, YIELD AND PRODUCTION, BY DISTRICTS, OHIO 1986-87

District	Harvested acres		Yield		Production	
	1986	1987	1986	1987	1986	1987
	Acres		Tons per acre		Thousand tons	
10	18,800	20,000	17.9	15.4	336.0	308.8
20	17,400	18,200	15.9	15.4	276.4	280.6
30	39,600	33,800	15.9	15.6	629.1	528.2
40	27,600	27,000	17.9	17.3	493.3	465.9
50	20,100	21,800	17.4	17.2	349.3	376.0
60	11,400	12,600	16.4	15.2	186.8	191.1
70	10,400	10,000	18.4	16.9	191.0	168.5
80	6,700	7,600	18.4	15.0	123.1	113.9
90	8,000	9,000	16.9	14.1	135.0	127.0
State	160,000	160,000	17.0	16.0	2,720.0	2,560.0

OHIO COUNTY ESTIMATES, 1986-1987
SOYBEANS: ACREAGE, YIELD AND PRODUCTION

County & District	Acreage Harvested		Yield		Production	
	1986	1987	1986	1987	1986	1987
	Acres		Bu. per acre		Bushels	
Allen	73,100	84,800	41.7	39.7	3,050,100	3,365,000
Defiance	73,200	84,800	33.5	29.5	2,450,600	2,503,200
Fulton	76,300	87,900	42.7	39.2	3,257,700	3,445,500
Hancock	114,200	126,400	44.6	36.3	5,097,500	4,593,600
Henry	89,200	100,100	43.2	33.5	3,851,700	3,353,100
Lucas	34,600	38,400	41.7	37.0	1,443,700	1,420,200
Paulding	93,600	100,800	39.3	31.7	3,678,400	3,191,500
Putnam	114,000	129,900	40.8	33.1	4,646,100	4,297,200
Van Wert	97,300	107,100	43.9	40.5	4,267,600	4,338,100
Williams	63,500	69,000	35.4	34.8	2,249,000	2,404,100
Wood	114,000	121,800	42.6	34.8	4,856,300	4,243,800
DISTRICT 10	943,000	1,051,000	41.2	35.4	38,848,700	37,155,300
Ashland	20,300	23,200	36.2	38.3	734,900	887,700
Crawford	82,200	87,500	43.1	41.1	3,546,700	3,592,200
Erie	27,500	31,400	40.3	41.6	1,107,400	1,305,700
Huron	83,200	89,300	38.8	40.2	3,226,700	3,588,600
Lorain	48,000	53,000	33.7	38.6	1,618,800	2,043,400
Ottawa	59,300	64,800	39.7	34.9	2,352,800	2,260,900
Richland	33,400	35,100	37.2	37.5	1,242,300	1,316,600
Sandusky	85,800	88,000	40.7	38.5	3,489,300	3,390,500
Seneca	116,200	121,400	42.7	38.1	4,956,100	4,628,300
Wyandot	89,100	91,300	44.6	38.6	3,976,900	3,524,600
DISTRICT 20	645,000	685,000	40.7	38.7	26,251,900	26,538,500
Ashtabula	9,400	10,100	28.1	33.6	263,700	339,100
Columbiana	1,500	1,900	37.6	38.2	56,400	72,500
Cuyahoga	*	*	*	*	*	*
Geauga	*	*	*	*	*	*
Lake	*	*	*	*	*	*
Mahoning	3,300	4,300	34.1	37.9	112,400	162,800
Medina	16,800	18,500	35.1	38.1	589,100	704,700
Portage	8,500	10,300	33.1	40.7	281,000	419,000
Stark	6,100	8,100	37.6	37.9	229,200	306,600
Summit	1,300	1,500	34.0	40.3	44,200	60,500
Trumbull	10,500	12,000	36.6	40.8	384,000	490,000
Wayne	12,200	16,700	39.1	40.9	476,700	682,300
Other Counties	1,400	1,600	31.6	34.8	44,200	55,600
DISTRICT 30	71,000	85,000	34.9	38.7	2,480,900	3,293,100
Auglaize	72,000	81,200	42.7	38.6	3,073,400	3,134,900
Champaign	56,600	66,100	42.0	35.8	2,377,100	2,367,200
Clark	57,600	62,600	40.7	36.2	2,345,600	2,266,900
Darke	127,900	145,500	41.5	40.7	5,308,900	5,916,200
Hardin	94,600	109,800	40.7	38.0	3,852,400	4,170,500
Logan	64,000	65,800	39.3	39.2	2,512,100	2,576,500
Mercer	85,400	93,700	43.2	40.6	3,687,200	3,804,000
Miami	64,500	68,800	41.8	37.3	2,696,200	2,566,600
Shelby	72,400	78,500	42.2	39.6	3,054,900	3,106,300
DISTRICT 40	695,000	772,000	41.6	38.7	28,907,800	29,909,100
Delaware	66,600	74,200	38.1	35.3	2,534,600	2,620,800
Fairfield	30,100	35,400	41.1	35.8	1,237,100	1,267,700
Fayette	86,900	98,300	42.1	38.4	3,659,900	3,775,200
Franklin	51,800	51,800	37.7	33.5	1,950,300	1,734,500
Knox	23,600	24,900	38.9	37.0	917,300	921,200
Licking	48,400	51,900	38.7	35.7	1,871,400	1,855,000
Madison	108,400	110,600	41.6	34.8	4,510,400	3,852,300
Marion	91,200	100,200	41.3	40.0	3,766,900	4,009,600
Morrow	53,200	54,300	40.1	36.3	2,132,600	1,971,200
Pickaway	93,300	107,100	37.0	32.9	3,456,100	3,520,200
Ross	46,500	50,200	38.1	34.7	1,769,600	1,742,700
Union	103,000	118,100	38.1	38.8	3,919,800	4,583,000
DISTRICT 50	803,000	877,000	39.5	36.3	31,726,000	31,853,400

OHIO COUNTY ESTIMATES, 1986-1987
SOYBEANS: ACREAGE, YIELD AND PRODUCTION

County & District	Acreage Harvested		Yield		Production	
	1986	1987	1986	1987	1986	1987
	Acres		Bu. per acre		Bushels	
Belmont	*	*	*	*	*	*
Carroll	*	1,300	*	36.1	*	46,900
Coshocton	*	1,000	*	34.9	*	34,900
Harrison	*	*	*	*	*	*
Holmes	2,200	2,400	35.4	34.9	77,800	83,700
Jefferson	*	*	*	*	*	*
Tuscarawas	2,700	2,600	37.7	36.8	101,900	95,700
Other Counties	2,600	1,200	36.8	36.2	95,800	43,400
DISTRICT 60	7,500	8,500	36.7	35.8	275,500	304,600
Butler	29,600	29,600	37.2	35.8	1,100,900	1,059,000
Clermont	29,600	34,600	33.5	35.7	990,800	1,234,200
Clinton	63,400	73,200	44.5	39.0	2,823,400	2,855,900
Greene	47,500	54,200	43.2	36.7	2,050,300	1,989,200
Hamilton	5,900	6,800	40.6	39.0	239,600	265,300
Montgomery	41,700	42,800	39.6	34.6	1,653,000	1,482,000
Preble	60,800	66,800	40.1	39.0	2,439,900	2,607,500
Warren	41,500	46,000	41.6	37.1	1,726,300	1,707,400
DISTRICT 70	320,000	354,000	40.7	37.3	13,024,200	13,200,500
Adams	10,600	10,900	36.1	31.0	382,700	338,400
Brown	45,100	48,200	33.7	35.4	1,520,000	1,706,900
Gallia	*	*	*	*	*	*
Highland	55,000	61,200	40.4	34.9	2,224,200	2,136,100
Jackson	*	1,000	*	28.8	*	28,800
Lawrence	*	*	*	*	*	*
Pike	10,000	11,600	40.8	29.6	408,300	343,500
Scioto	7,200	7,900	40.9	29.1	294,600	229,800
Other Counties	2,100	1,200	35.3	25.2	74,100	30,200
DISTRICT 80	130,000	142,000	37.7	33.9	4,903,900	4,813,700
Athens	*	*	*	*	*	*
Guernsey	*	*	*	*	*	*
Hocking	*	*	*	*	*	*
Meigs	*	*	*	*	*	*
Monroe	*	*	*	*	*	*
Morgan	*	*	*	*	*	*
Muskingum	*	*	*	*	*	*
Noble	*	*	*	*	*	*
Perry	2,300	2,200	37.6	34.1	86,400	75,000
Vinton	*	*	*	*	*	*
Washington	*	*	*	*	*	*
Other Counties	3,200	3,300	32.7	35.4	104,700	116,800
DISTRICT 90	5,500	5,500	34.7	34.9	191,100	191,800
STATE	3,620,000	3,980,000	40.5	37.0	146,610,000	147,260,000

* Counties with less than 1,000 acres not published. Counties with more than 1,000 acres are also not published, if necessary, to preserve the confidentiality of counties with less than 1,000 acres.

OHIO COUNTY ESTIMATES, 1986-1987
ALL WHEAT: ACREAGE, YIELD AND PRODUCTION

County & District	Acreage Harvested		Yield		Production	
	1986	1987	1986	1987	1986	1987
	Acres		Bu. per acre		Bushels	
Allen	21,200	14,600	47.5	58.9	1,007,700	859,300
Defiance	23,200	17,700	43.7	52.7	1,013,500	933,300
Fulton	13,500	9,100	50.8	58.7	685,900	534,000
Hancock	43,500	34,500	49.4	59.8	2,149,000	2,062,000
Henry	29,100	23,100	52.1	65.4	1,515,000	1,511,700
Lucas	5,000	3,400	49.3	58.7	246,400	199,700
Paulding	28,100	26,300	49.9	56.7	1,402,000	1,490,700
Putnam	40,500	28,600	46.0	55.7	1,864,800	1,591,600
Van Wert	28,100	23,800	53.8	63.0	1,512,300	1,498,400
Williams	23,100	19,300	43.4	52.0	1,002,000	1,004,500
Wood	44,700	37,600	53.1	65.7	2,373,500	2,468,700
DISTRICT 10	300,000	238,000	49.2	59.5	14,772,100	14,153,900
Ashland	9,800	7,100	37.1	47.9	363,500	340,200
Crawford	27,000	18,300	50.5	57.2	1,363,100	1,047,300
Erie	7,600	6,400	49.6	59.4	376,600	380,000
Huron	20,300	16,500	48.3	54.7	981,500	903,300
Lorain	8,900	7,500	37.9	50.3	337,200	377,300
Ottawa	10,600	9,000	52.0	59.4	551,000	534,900
Richland	13,300	8,200	42.5	54.9	564,600	450,400
Sandusky	15,400	11,900	49.1	58.7	755,800	698,000
Seneca	30,000	23,600	45.1	56.3	1,352,500	1,328,400
Wyandot	34,100	27,500	50.9	56.2	1,734,500	1,546,700
DISTRICT 20	177,900	136,000	47.3	55.9	8,380,300	7,606,500
Ashtabula	3,200	2,300	34.9	42.0	111,700	96,600
Columbiana	8,200	7,100	42.1	50.8	345,400	360,900
Cuyahoga	*	*	*	*	*	*
Geauga	*	*	*	*	*	*
Lake	*	*	*	*	*	*
Mahoning	4,600	2,800	41.7	44.9	191,600	125,600
Medina	6,300	4,800	32.9	43.4	207,500	208,400
Portage	5,900	5,200	36.5	50.1	215,300	260,400
Stark	10,800	7,500	37.7	47.5	407,300	355,900
Summit	1,100	1,000	39.6	41.7	43,600	41,700
Trumbull	3,100	2,700	41.6	49.2	129,100	132,800
Wayne	15,500	13,700	40.4	52.0	626,800	712,400
Other Counties	1,300	900	39.3	46.6	51,100	41,900
DISTRICT 30	60,000	48,000	38.8	48.7	2,329,400	2,336,600
Auglaize	23,900	18,700	44.7	61.0	1,067,300	1,140,100
Champaign	14,300	10,700	49.4	64.0	707,100	685,100
Clark	9,800	6,900	49.3	68.2	482,800	470,700
Darke	26,500	19,900	43.7	61.9	1,158,500	1,232,300
Hardin	33,500	26,200	43.2	56.7	1,448,700	1,484,600
Logan	14,300	10,200	41.8	57.5	598,300	586,300
Mercer	28,700	21,200	50.3	66.1	1,443,500	1,401,800
Miami	15,200	11,700	47.3	62.4	718,800	729,600
Shelby	18,800	14,500	46.3	63.5	871,300	920,700
DISTRICT 40	185,000	140,000	45.9	61.8	8,496,300	8,651,200
Delaware	13,900	8,300	45.4	52.1	631,300	432,400
Fairfield	15,100	12,300	46.9	56.7	708,400	697,300
Fayette	15,600	11,100	46.1	67.3	718,700	747,400
Franklin	9,800	6,600	43.9	64.9	430,300	428,400
Knox	10,300	7,900	37.9	49.5	390,500	390,800
Licking	12,100	9,000	42.1	52.7	509,100	474,300
Madison	16,100	13,200	49.3	68.5	793,500	904,400
Marion	27,500	16,500	46.0	58.2	1,264,100	960,400
Morrow	12,100	7,300	43.5	52.8	526,400	385,600
Pickaway	25,100	18,400	46.4	64.6	1,165,700	1,188,200
Ross	20,900	16,000	41.8	59.3	873,600	949,500
Union	21,500	12,400	45.8	51.5	984,200	638,800
DISTRICT 50	200,000	139,000	45.0	59.0	8,996,800	8,197,500

OHIO COUNTY ESTIMATES, 1986-1987
ALL WHEAT: ACREAGE, YIELD AND PRODUCTION

County & District	Acreage Harvested		Yield		Production	
	1986	1987	1986	1987	1986	1987
	Acres		Bu. per acre		Bushels	
Belmont	*	*	*	*	*	*
Carroll	2,300	1,600	38.5	47.9	88,600	76,600
Coshocton	4,200	3,000	40.9	48.6	171,800	145,700
Harrison	*	*	*	*	*	*
Holmes	6,000	4,500	33.9	45.6	203,200	205,400
Jefferson	*	*	*	*	*	*
Tuscarawas	3,700	2,700	37.1	44.3	137,400	119,700
Other Counties	1,800	1,200	35.4	48.8	63,700	58,500
DISTRICT 60	18,000	13,000	36.9	46.6	664,700	605,900
Butler	8,600	7,500	39.8	57.4	342,400	430,200
Clermont	*	*	*	*	*	*
Clinton	12,500	9,600	49.3	62.4	616,200	599,400
Greene	10,900	7,500	47.5	60.7	517,400	455,500
Hamilton	*	*	*	*	*	*
Montgomery	7,100	5,200	48.4	61.2	343,300	318,400
Preble	14,600	11,300	46.5	65.8	678,400	743,500
Warren	6,600	4,100	42.6	52.7	281,300	216,100
Other Counties	3,700	2,800	35.1	51.9	130,000	145,300
DISTRICT 70	64,000	48,000	45.5	60.6	2,909,000	2,908,400
Adams	5,000	4,800	36.4	49.3	182,200	236,800
Brown	8,000	6,500	34.2	49.4	273,800	321,100
Gallia	*	*	*	*	*	*
Highland	15,500	12,100	41.3	53.7	640,700	649,900
Jackson	*	*	*	*	*	*
Lawrence	*	*	*	*	*	*
Pike	2,100	1,600	36.0	49.8	75,700	79,600
Scioto	1,000	*	29.8	*	29,800	*
Other Counties	1,400	2,000	34.2	46.2	47,900	92,400
DISTRICT 80	33,000	27,000	37.9	51.1	1,250,100	1,379,800
Athens	*	*	*	*	*	*
Guernsey	*	*	*	*	*	*
Hocking	1,000	*	42.9	*	42,900	*
Meigs	*	*	*	*	*	*
Monroe	*	*	*	*	*	*
Morgan	1,400	1,100	36.4	40.5	51,000	44,600
Muskingum	3,600	2,700	36.7	49.7	132,200	134,100
Noble	*	*	*	*	*	*
Perry	3,900	3,500	39.7	53.2	154,700	186,100
Vinton	*	*	*	*	*	*
Washington	1,500	1,400	39.9	54.6	59,900	76,500
Other Counties	1,600	2,300	38.5	51.7	61,600	118,900
DISTRICT 90	13,000	11,000	38.6	50.9	502,300	560,200
STATE	1,050,000	800,000	46.0	58.0	48,300,000	46,400,000

* Counties with less than 1,000 acres not published. Counties with more than 1,000 acres are also not published, if necessary, to preserve the confidentiality of counties with less than 1,000 acres.

OHIO COUNTY ESTIMATES, 1986-1987
OATS FOR GRAIN: ACREAGE, YIELD AND PRODUCTION

County & District	Acreage Harvested		Yield		Production	
	1986	1987	1986	1987	1986	1987
	Acres		Bu. per acre		Bushels	
Allen	2,100	3,300	93.3	71.9	196,000	237,300
Defiance	4,200	6,500	76.4	70.5	320,900	458,400
Fulton	*	*	*	*	*	*
Hancock	1,200	2,100	73.6	68.1	88,300	143,000
Henry	1,800	2,700	69.4	76.7	125,000	207,100
Lucas	*	*	*	*	*	*
Paulding	4,200	6,000	89.6	76.2	376,200	457,300
Putnam	2,900	4,600	93.3	82.5	270,700	379,500
Van Wert	2,500	4,400	96.2	86.3	240,400	379,700
Williams	2,300	4,000	67.4	66.2	155,000	264,600
Wood	3,100	4,600	89.6	81.5	277,700	374,900
Other Counties	1,700	2,800	82.7	70.2	140,600	196,500
DISTRICT 10	26,000	41,000	84.3	75.6	2,190,800	3,098,300
Ashland	5,000	6,900	79.6	73.5	398,100	507,100
Crawford	1,900	3,600	87.6	74.4	166,400	267,900
Erie	1,100	1,600	84.5	78.6	93,000	125,700
Huron	4,300	7,500	86.5	77.6	371,800	582,100
Lorain	2,400	4,200	79.3	69.1	190,400	290,300
Ottawa	1,100	1,800	80.8	66.3	88,900	119,300
Richland	5,000	8,700	73.4	62.3	366,900	541,700
Sandusky	1,200	2,300	79.9	71.6	95,900	164,600
Seneca	4,500	6,400	87.6	81.0	394,400	518,700
Wyandot	1,500	2,000	82.4	71.0	123,600	142,000
DISTRICT 20	28,000	45,000	81.8	72.4	2,289,400	3,259,400
Ashtabula	6,000	8,400	68.1	71.5	408,400	601,000
Columbiana	6,100	10,100	70.6	68.5	430,600	692,300
Cuyahoga	*	*	*	*	*	*
Geauga	3,700	6,600	69.2	60.8	256,200	401,000
Lake	*	*	*	*	*	*
Mahoning	2,900	5,600	79.2	75.2	229,800	421,000
Medina	3,500	6,400	78.0	74.0	272,900	473,400
Portage	3,100	3,900	68.5	69.6	212,400	271,600
Stark	6,700	8,700	76.9	70.8	515,400	615,600
Summit	1,000	1,200	61.3	63.0	61,300	75,600
Trumbull	3,500	6,100	71.1	74.4	248,900	453,900
Wayne	10,900	16,000	77.6	73.4	845,600	1,174,200
Other Counties	600	1,000	65.0	63.0	39,000	63,000
DISTRICT 30	48,000	74,000	73.3	70.8	3,520,500	5,242,600
Auglaize	2,800	3,800	81.3	69.3	227,600	263,300
Champaign	*	1,300	*	65.7	*	85,400
Clark	*	*	*	*	*	*
Darke	2,700	3,900	80.7	71.5	218,000	279,000
Hardin	1,600	2,800	87.6	65.8	140,200	184,300
Logan	1,200	2,200	75.8	67.2	90,900	147,800
Mercer	4,600	7,800	87.7	77.3	403,300	602,600
Miami	*	*	*	*	*	*
Shelby	2,200	3,600	82.2	79.2	180,800	285,000
Other Counties	1,900	1,600	79.5	72.8	151,000	116,400
DISTRICT 40	17,000	27,000	83.0	72.7	1,411,800	1,963,800
Delaware	*	1,400	*	61.1	*	85,600
Fairfield	*	*	*	*	*	*
Fayette	*	*	*	*	*	*
Franklin	*	*	*	*	*	*
Knox	4,600	7,000	63.3	59.8	291,100	418,400
Licking	1,900	3,400	65.7	70.2	124,800	238,700
Madison	*	*	*	*	*	*
Marion	1,200	1,300	83.3	66.4	99,900	86,300
Morrow	1,900	3,500	79.1	63.9	150,300	223,500
Pickaway	*	*	*	*	*	*
Ross	*	*	*	*	*	*
Union	1,100	2,100	73.6	64.7	81,000	135,800
Other Counties	3,300	3,300	68.2	64.6	225,100	213,200
DISTRICT 50	14,000	22,000	69.4	63.7	972,200	1,401,500

OHIO COUNTY ESTIMATES, 1986-1987
OATS FOR GRAIN: ACREAGE, YIELD AND PRODUCTION

County & District	Acreage Harvested		Yield		Production	
	1986	1987	1986	1987	1986	1987
	Acres		Bu. per acre		Bushels	
Belmont	*	1,100	*	61.8	*	68,000
Carroll	2,800	3,800	62.4	61.8	174,600	234,800
Coshocton	1,600	2,000	64.8	58.0	103,700	116,000
Harrison	1,100	1,900	68.8	69.4	75,700	131,900
Holmes	8,900	13,200	70.4	65.1	626,700	858,900
Jefferson	*	1,500	*	58.0	*	87,000
Tuscarawas	2,800	4,500	71.1	67.1	199,000	301,900
Other Counties	1,800		60.2		108,300	
DISTRICT 60	19,000	28,000	67.8	64.2	1,288,000	1,798,500
Butler	*	*	*	*	*	*
Clermont	*	*	*	*	*	*
Clinton	*	*	*	*	*	*
Greene	*	*	*	*	*	*
Hamilton	*	*	*	*	*	*
Montgomery	*	*	*	*	*	*
Preble	*	1,000	*	62.6	*	62,600
Warren	*	*	*	*	*	*
Other Counties	2,500	3,000	69.0	57.2	172,500	171,700
DISTRICT 70	2,500	4,000	69.0	58.6	172,500	234,300
Adams	*	*	*	*	*	*
Brown	*	*	*	*	*	*
Gallia	*	*	*	*	*	*
Highland	*	*	*	*	*	*
Jackson	*	*	*	*	*	*
Lawrence	*	*	*	*	*	*
Pike	*	*	*	*	*	*
Scioto	*	*	*	*	*	*
Other Counties	1,000	2,000	64.8	55.8	64,800	111,500
DISTRICT 80	1,000	2,000	64.8	55.8	64,800	111,500
Athens	*	*	*	*	*	*
Guernsey	*	1,100	*	49.8	*	54,800
Hocking	*	*	*	*	*	*
Meigs	*	*	*	*	*	*
Monroe	*	*	*	*	*	*
Morgan	*	*	*	*	*	*
Muskingum	1,400	2,500	56.0	64.1	78,400	160,300
Noble	*	*	*	*	*	*
Perry	*	*	*	*	*	*
Vinton	*	*	*	*	*	*
Washington	*	*	*	*	*	*
Other Counties	3,100	3,400	55.4	51.5	171,600	175,000
DISTRICT 90	4,500	7,000	55.6	55.7	250,000	390,100
STATE	160,000	250,000	76.0	70.0	12,160,000	17,500,000

* Counties with less than 1,000 acres not published. Counties with more than 1000 acres are also not published, if necessary to preserve the confidentiality of counties with less than 1,000 acres.

OHIO COUNTY ESTIMATES, 1986-1987
ALL HAY: ACREAGE, YIELD AND PRODUCTION

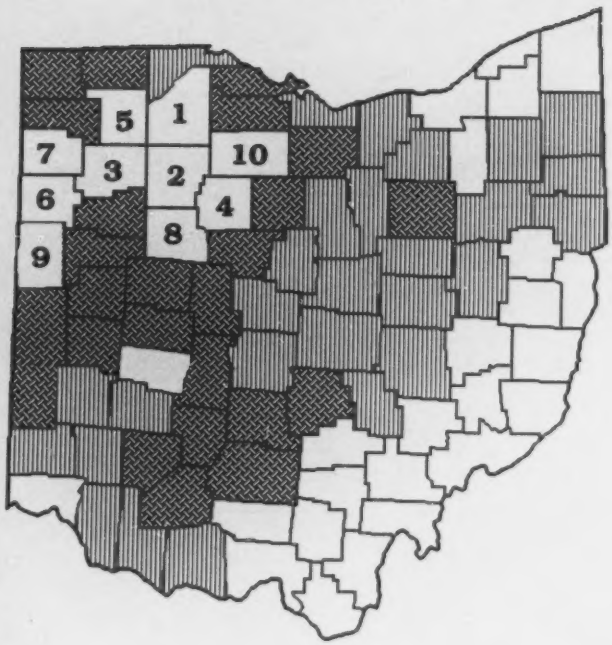
County & District	Acreage Harvested		Yield		Production	
	1986	1987	1986	1987	1986	1987
	Acres		Tons per acre		Tons	
Allen	7,200	7,700	3.47	3.32	25,000	25,600
Defiance	8,800	9,500	3.47	3.56	30,500	33,800
Fulton	5,900	5,200	3.59	3.12	21,200	16,200
Hancock	7,900	7,700	3.62	4.00	28,600	30,800
Henry	7,600	7,800	3.62	3.73	27,500	29,100
Lucas	2,100	2,300	3.81	4.00	8,000	9,200
Paulding	6,600	7,500	2.24	2.47	14,800	18,500
Putnam	12,900	11,100	3.21	3.24	41,400	36,000
Van Wert	4,100	4,000	3.15	3.40	12,900	13,600
Williams	12,500	12,200	4.04	3.56	50,500	43,400
Wood	7,400	8,000	3.15	3.14	23,300	25,100
DISTRICT 10	83,000	83,000	3.42	3.39	283,700	281,300
Ashland	34,500	33,000	3.88	3.68	134,000	121,500
Crawford	9,500	9,200	3.82	3.01	36,300	27,700
Erie	5,700	5,300	4.21	4.04	24,000	21,400
Huron	9,700	8,700	3.71	3.79	36,000	33,000
Lorain	14,800	12,200	4.09	3.93	60,500	48,000
Ottawa	8,800	7,300	3.15	3.47	27,700	25,300
Richland	21,900	21,500	3.41	3.49	74,600	75,100
Sandusky	7,000	5,600	3.81	3.36	26,700	18,800
Seneca	14,300	11,500	3.33	3.26	47,600	37,500
Wyandot	8,800	6,700	3.06	3.39	26,900	22,700
DISTRICT 20	135,000	121,000	3.66	3.56	494,300	431,000
Ashtabula	39,600	40,700	2.74	3.00	108,400	122,300
Columbiana	34,100	33,600	3.51	3.65	119,700	122,700
Cuyahoga	1,400	1,400	2.36	2.50	3,300	3,500
Geauga	17,200	16,200	3.29	3.86	56,600	62,600
Lake	3,900	3,700	2.31	2.27	9,000	8,400
Mahoning	14,900	15,000	3.09	3.37	46,000	50,500
Medina	23,200	24,700	3.22	3.53	74,700	87,200
Portage	17,000	17,200	3.07	3.81	52,200	65,500
Stark	27,500	29,400	3.40	3.63	93,600	106,700
Summit	4,500	4,400	2.38	3.34	10,700	14,700
Trumbull	22,500	22,800	3.16	3.63	71,100	82,700
Wayne	59,200	60,900	3.86	3.86	228,400	235,000
DISTRICT 30	265,000	270,000	3.30	3.56	873,700	961,800
Auglaize	15,700	15,800	4.18	3.87	65,700	61,100
Champaign	11,000	10,500	3.45	3.06	38,000	32,100
Clark	8,300	7,300	3.02	2.82	25,100	20,600
Darke	17,300	18,100	4.22	3.96	73,000	71,700
Hardin	7,900	7,000	2.66	2.83	21,000	19,800
Logan	16,300	16,500	3.11	3.30	50,700	54,500
Mercer	23,800	24,000	3.98	4.04	94,800	96,900
Miami	8,300	7,800	4.45	3.88	36,900	30,300
Shelby	19,400	20,000	3.68	3.55	71,300	70,900
DISTRICT 40	128,000	127,000	3.72	3.61	476,500	457,900
Delaware	9,300	9,200	2.81	2.91	26,100	26,800
Fairfield	19,000	16,600	2.78	3.03	52,900	50,300
Fayette	8,800	8,600	2.51	2.24	22,100	19,300
Franklin	5,100	4,400	2.16	3.11	11,000	13,700
Knox	29,900	28,700	3.01	3.55	90,100	101,800
Licking	30,200	26,800	2.57	2.79	77,600	74,900
Madison	8,300	7,000	2.55	2.81	21,200	19,700
Marion	6,200	5,800	2.77	3.55	17,200	20,600
Morrow	12,400	10,400	3.10	2.92	38,400	30,400
Pickaway	11,700	11,500	2.80	3.10	32,800	35,600
Ross	21,400	20,100	2.72	2.42	58,300	48,700
Union	12,700	11,900	2.89	3.64	36,700	43,300
DISTRICT 50	175,000	161,000	2.77	3.01	484,400	485,100

OHIO COUNTY ESTIMATES, 1986-1987
ALL HAY: ACREAGE, YIELD AND PRODUCTION

County & District	Acreage Harvested		Yield		Production	
	1986	1987	1986	1987	1986	1987
	Acres		Tons per acre		Tons	
Belmont	34,100	36,300	2.09	2.55	71,400	92,600
Carroll	31,800	31,500	2.91	3.29	92,400	103,500
Coshocton	31,600	31,300	3.03	2.82	95,700	88,200
Harrison	21,800	23,200	2.48	3.06	54,100	70,900
Holmes	46,700	46,600	3.38	3.20	158,000	149,200
Jefferson	17,800	18,800	2.83	3.02	50,400	56,700
Tuscarawas	31,200	32,300	2.94	2.98	91,700	96,100
DISTRICT 60	215,000	220,000	2.85	2.99	613,700	657,200
Butler	20,100	20,400	2.61	2.77	52,400	56,500
Clermont	11,700	10,500	2.33	2.34	27,300	24,600
Clinton	8,900	8,000	2.76	2.55	24,600	20,400
Greene	9,900	9,800	3.20	3.61	31,700	35,400
Hamilton	3,900	3,900	3.05	3.41	11,900	13,300
Montgomery	7,500	7,600	2.72	3.43	20,400	26,100
Preble	11,100	11,000	2.97	2.98	33,000	32,800
Warren	10,900	10,800	3.06	2.80	33,400	30,200
DISTRICT 70	84,000	82,000	2.79	2.92	234,700	239,300
Adams	30,500	28,800	2.23	2.23	68,100	64,300
Brown	21,500	22,900	2.38	2.03	51,200	46,500
Gallia	20,200	19,200	1.92	2.04	38,700	39,100
Highland	22,200	24,000	3.01	2.79	66,800	66,900
Jackson	17,700	19,100	2.66	2.20	47,100	42,000
Lawrence	9,100	8,300	2.24	1.96	20,400	16,300
Pike	12,400	12,400	2.18	2.77	27,000	34,300
Scioto	11,400	11,300	2.78	2.23	31,700	25,200
DISTRICT 80	145,000	146,000	2.42	2.29	351,000	334,600
Athens	18,400	21,500	2.38	2.22	43,800	47,700
Guernsey	33,000	34,000	2.16	2.53	71,400	86,000
Hocking	7,400	7,100	1.96	2.38	14,500	16,900
Meigs	16,900	18,800	1.62	1.90	27,300	35,700
Monroe	24,200	23,500	1.75	2.46	42,300	57,800
Morgan	18,100	21,100	2.35	2.66	42,600	56,100
Muskingum	40,700	42,300	2.48	2.73	100,800	115,600
Noble	21,600	21,500	1.92	1.86	41,500	39,900
Perry	14,700	14,800	2.27	2.61	33,400	38,600
Vinton	7,000	7,800	2.11	2.15	14,800	16,800
Washington	28,000	27,600	2.24	2.31	62,600	63,700
DISTRICT 90	230,000	240,000	2.15	2.40	496,000	574,800
STATE	1,460,000	1,450,000	2.95	3.05	4,307,000	4,423,000

WHEAT

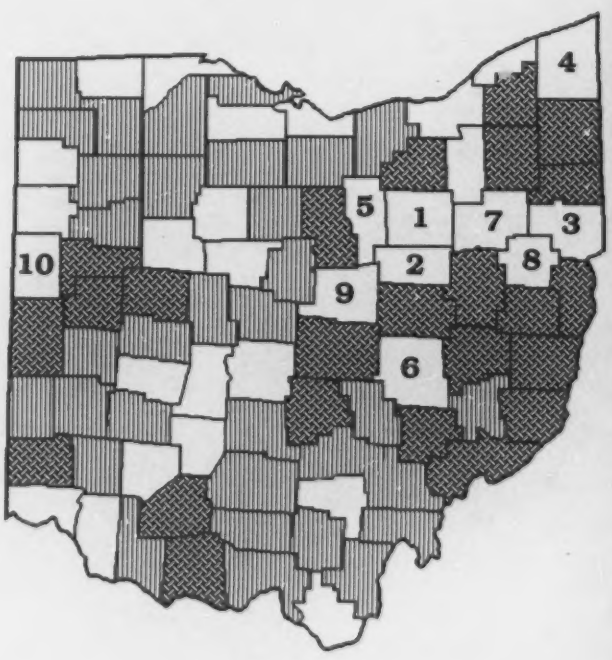
THOUSAND BUSHELS



Symbol	Thousand Bushels Top Ten Counties
1—10	1,300 and Over
	500 — 1,299
	100—499
	Under 100

HAY

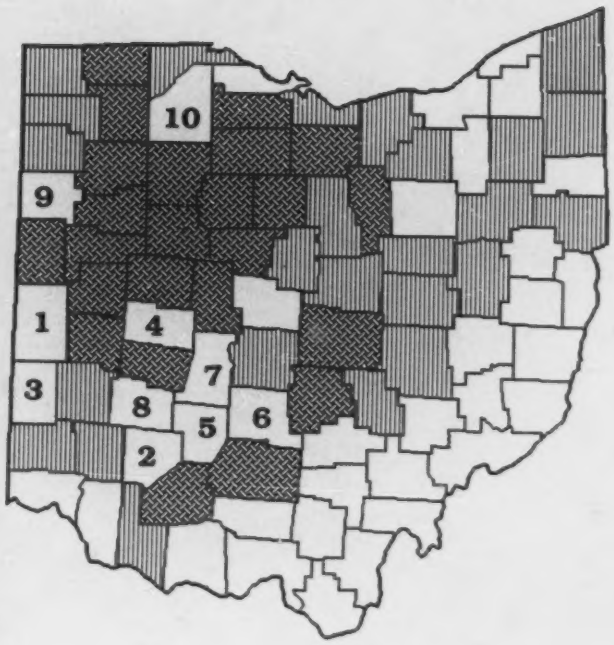
THOUSAND TONS



Symbol	Thousand Tons Top Ten Counties
1—10	96.5 and Over
	50 — 96.4
	25 — 49
	Under 25

CORN

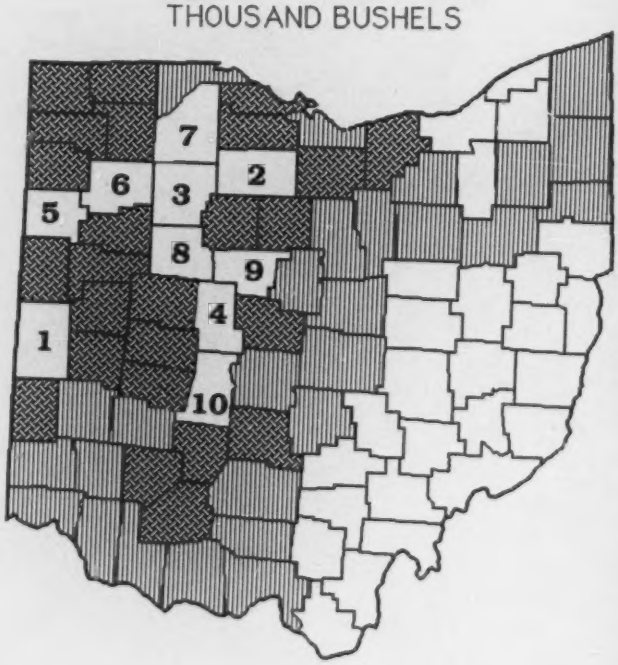
THOUSAND BUSHELS



Symbol	Thousand Bushels Top Ten Counties
1—10	7940 and Over
	5,000 — 7,939
	2,000 — 4,999
	Under 2,000

SOYBEANS

THOUSAND BUSHELS



Symbol	Thousand Bushels Top Ten Counties
1—10	3,850 and Over
	2,043 — 3,848
	2,000 —
	100 — 1,999
	Under 100

SUGAR BEETS: ACREAGE, YIELD AND PRODUCTION, OHIO, 1986 and 1987

County	Harvested acres		Yield		Production	
	1986	1987	1986	1987	1986	1987
	Acres		Tons per acre		Tons	
Erie	480	580	25.6	20.3	12,300	11,800
Hancock	680	600	17.8	14.0	12,100	8,400
Huron	260	270	27.7	17.4	7,200	4,700
Ottawa	1,200	1,250	22.8	15.0	27,300	18,700
Putnam	1,560	1,490	19.5	15.6	30,400	23,200
Sandusky	6,700	7,700	19.9	16.9	133,300	130,500
Seneca	2,800	3,000	22.9	17.4	64,200	52,300
Wood	1,010	1,040	16.4	14.8	16,600	15,400
All other 1/	310	270	18.1	14.8	5,600	4,000
State	15,000	16,200	20.6	16.6	309,000	269,000

1/ Hardin, Lucas and Henry in 1986; Lucas and Henry in 1987.

BURLEY TOBACCO: ACREAGE, YIELD AND PRODUCTION, OHIO, 1986 and 1987

County	Harvested acres		Yield		Production	
	1986	1987	1986	1987	1986	1987
	Acres		Lbs. per acre		Lbs.	
Adams	1,870	1,870	1,830	1,685	3,420,000	3,151,000
Brown	2,270	2,360	1,960	1,710	4,450,000	4,036,000
Clermont	700	770	1,815	1,780	1,270,000	1,372,000
Gallia	820	790	1,790	1,385	1,470,000	1,094,000
Highland	500	510	1,900	1,700	950,000	868,000
Jackson	50	50	2,100	1,820	105,000	91,000
Lawrence	380	430	1,450	1,200	550,000	516,000
Pike	120	110	1,500	1,480	180,000	163,000
Ross	40	35	2,000	1,485	80,000	52,000
Scioto	280	290	1,750	1,690	490,000	490,000
Other 1/	70	85	1,415	1,635	99,000	139,000
State	7,100	7,300	1,840	1,640	13,064,000	11,972,000

1/Includes Athens, Clinton, Fayette, Greene, Hamilton, Meigs, Monroe, Montgomery, Noble, Vinton and Warren in 1986 and 1987.

FALL POTATOES: PRODUCTION AND TOTAL STOCKS HELD BY GROWERS AND DEALERS, OHIO, 1982-87

Crop year	Production	Stocks	Stocks following year			
		December 1	January 1	February 1	March 1	April 1
	Thousand hundredweight					
1982	2,205	800	400	200	70	25
1983	1,886	700	430	270	100	40
1984	2,418	950	650	450	250	100
1985	2,465	800	500	300	130	40
1986 1/	2,522	680	450	250	N/A	N/A
1987	2,254	650	430	235	N/A	N/A

1/ Beginning in 1986 the summer and fall season estimates were combined into one fall season estimate.

PROCESSING TOMATOES: HARVESTED ACREAGE, YIELD AND PRODUCTION, OHIO 1986 AND 1987

Counties	Harvested acreage 1986	Harvested acreage 1987	Yield 1986	Yield 1987	Production 1986	Production 1987
	Acres		Tons		Tons	
Darke	610	1,220	18.5	18.9	11,300	23,100
Defiance	250	-	22.0	-	5,500	-
Fulton	1,030	1,260	25.9	22.6	26,700	28,500
Hancock	-	470	-	18.9	-	8,900
Henry	1,110	800	23.7	20.1	26,300	16,100
Lucas	200	350	27.0	21.4	5,400	7,500
Mercer	-	160	-	16.3	-	2,600
Ottawa	720	1,120	32.6	23.5	23,500	26,300
Putnam	2,570	2,720	24.3	21.0	62,500	57,100
Sandusky	2,270	2,700	29.4	26.4	66,800	71,200
Seneca	900	740	32.3	27.8	29,100	20,600
Williams	640	570	25.3	21.9	16,200	12,500
Wood	2,120	1,880	24.1	21.1	51,000	39,700
Other counties 1/	2,380	2,010	25.4	31.2	60,500	53,900
Total	14,800	16,000	26.0	23.0	384,800	368,000

1/ Other counties includes Adams, Allen, Clinton, Erie, Fayette, Greene, Huron, Madison, Miami, Pickaway, Van Wert, And Wyandot in both 1986 and 1987; 1986 also includes Hancock, Mercer, and Ross; 1987 also includes Defiance.

PROCESSING TOMATOES: METHOD OF PLANTING AS PERCENT OF HARVESTED ACREAGE, OHIO, 1986-1987

Methods of planting	Harvested acreage 1986	Harvested acreage 1987	% of total 1986	% of total 1987
Seeded	1,800	1,300	12	8
Transplanted	13,000	14,700	88	92
Total	14,800	16,000	100	100

PROCESSING TOMATOES: METHOD OF HARVESTING AS PERCENT OF HARVESTED ACREAGE, OHIO, 1986-1987

Methods of harvesting	Harvested acreage 1986	Harvested acreage 1987	% of total 1986	% of total 1987
Mechanical	12,400	14,700	84	92
Handpicked	2,400	1,300	16	8
Total	14,800	16,000	100	100

OFF-FARM COMMERCIAL GRAIN STORAGE CAPACITY, DECEMBER 1, 1986 AND 1987

County	Capacity 12/1/86	Capacity 12/1/87	County	Capacity 12/1/86	Capacity 12/1/87	County	Capacity 12/1/86	Capacity 12/1/87
	1,000 bushels			1,000 bushels			1,000 bushels	
Adams	851	850	Hancock	17,657	18,323	Paulding	7,181	7,261
Allen	7,573	9,764	Hardin	5,748	5,867	Perry	4	64
Ashland	1,830	2,222	Harrison	3	3	Pickaway	4,217	4,807
Ashtabula	378	487	Henry	8,745	9,227	Pike	0	0
Athens	7	7	Highland	2,114	2,546	Portage	1,147	1,879
Auglaize	3,447	4,548	Hocking	958	1,373	Preble	3,570	4,094
Belmont	16	16	Holmes	266	46	Putnam	3,014	3,488
Brown	198	155	Huron	8,797	10,833	Richland	2,510	2,490
Butler	4,129	4,078	Jackson	60	60	Ross	2,998	3,826
Carroll	39	39	Jefferson	2	2	Sandusky	4,259	5,002
Champaign	5,998	6,141	Knox	1,501	2,735	Scioto	150	150
Clark	3,372	4,651	Lake	0	0	Seneca	5,547	5,524
Clermont	0	0	Lawrence	500	700	Shelby	8,446	8,446
Clinton	4,335	4,419	Licking	2,309	2,484	Stark	358	379
Columbiana	589	914	Logan	2,647	2,485	Summit	0	0
Coshocton	2,705	4,285	Lorain	1,940	1,933	Trumbull	354	450
Crawford	4,128	4,865	Lucas	53,172	55,827	Tuscarawas	472	237
Cuyahoga	507	507	Madison	4,358	4,456	Union	1,060	1,290
Darke	4,872	4,770	Mahoning	1,404	1,127	Van Wert	6,396	6,901
Defiance	3,164	3,072	Marion	9,552	9,425	Vinton	0	0
Delaware	1,032	1,032	Medina	375	426	Warren	559	559
Erie	3,526	3,405	Meigs	17	17	Washington	33	6
Fairfield	907	1,023	Mercer	2,689	3,007	Wayne	2,636	3,300
Fayette	3,498	4,528	Miami	6,288	7,562	Williams	4,011	3,736
Franklin	9,865	10,532	Monroe	3	3	Wood	12,645	12,430
Fulton	9,042	12,278	Montgomery	4,728	4,141	Wyandot	10,725	11,625
Gallia	60	60	Morgan	10	10			
Geauga	142	157	Morrow	3,833	3,697	OHIO	318,400	346,360
Greene	2,351	2,367	Muskingum	3,291	3,526			
Guernsey	8	4	Noble	2	2			
Hamilton	12,409	11,885	Ottawa	2,161	3,572	U.S. Total	9,123,280	9,607,770

GRAIN STOCKS: TOTAL STOCKS AND PERCENT OF PRODUCTION, BY QUARTERS, OHIO, 1986-1988

Crop	Year	December 1/		March 1 2/		June 1		September 1 3/	
		All positions	% of 4/ prod.	All positions	% of 4/ prod.	All positions	% of 4/ prod.	All positions	% of 4/ prod.
		Thousand bushels							
CORN	1986	401,361	78	284,168	56	234,466	46	156,850	31
	1987	492,982	104	372,352	78	283,901	60	169,539	36
	1988	431,300	119						
SOYBEANS	1986	113,783	71	72,253	45	51,081	32	22,642	14
	1987	106,282	72	79,785	54	39,979	27	11,684	8
	1988	97,500	66						
WHEAT	1986	33,939	58	18,828	32	13,895	24	43,235	90
	1987	29,008	60	20,284	42	12,009	25	49,281	106
	1988	35,950	77						
OATS 5/	1986					8,037	31		
	1987					5,447	45		

1/ December previous year, 1986 reference date is January. 2/ Reference date for 1986 is April 1 3/ Reference date for 1986 for wheat and corn is October 1. 4/ Percent of production refers to previous year's production, except September 1 where percent for wheat refers to current year. 5/ Beginning 1986 stocks estimated only on June 1st.

STOCKS OF GRAIN: BY POSITION AND QUARTER, OHIO, 1986-88

Crop	Year	December 1 1/		March 1 2/		June 1		September 1 3/	
		On farms	Off farms	On farms	Off farms	On farms	Off farms	On farms	Off farms
		Thousand bushels							
CORN	1986	266,141	135,220	168,897	115,271	138,189	96,277	61,500	95,350
	1987	300,000	192,982	210,000	162,352	140,000	143,901	50,000	119,539
	1988	245,000	186,300						
SOYBEANS	1986	62,636	51,147	33,727	38,526	24,091	26,990	6,000	16,642
	1987	57,000	49,282	42,000	37,185	13,000	26,979	5,000	6,684
	1988	52,000	45,500						
WHEAT	1986	2,651	31,288	1,767	17,061	1,178	12,717	7,100	36,135
	1987	2,100	26,908	1,300	18,984	800	11,209	5,000	44,281
	1988	2,600	33,350						
OATS 4/	1986					4,743	3,294		
	1987					4,000	1,447		

1/ December previous year, 1986 reference date is January. 2/ Reference date for 1986 is April 1. 3/ Reference date for 1986 for wheat and corn is October 1. 4/ Beginning 1986 stocks estimated only on June 1.

ALL HAY ON FARMS: OHIO, 1984-87

Year	May 1	Percent 1/ of prod.	Dec 1	Percent of prod.
	Thou. ton	Pct.	Thou. ton	Pct.
1984	422	13	2,076	55
1985	569	15	2,429	53
1986	920	20	2,929	68
1987	560	13	2,875	65

1/Pertains to previous year's production.

CORN, SOYBEANS, WHEAT, OATS, ALL HAY: HARVESTED ACRES, YIELD AND PRODUCTION, OHIO, 1980-87

Year	Corn for grain			Soybeans			Wheat		
	Harvested acres	Yield	Production	Harvested acres	Yield	Production	Harvested acres	Yield	Production
	Thou.	Bu./acre	Thou. bu.	Thou.	Bu./acre	Thou. bu.	Thou.	Bu./acre	Thous. bu
1980	3,900	113.0	440,700	3,760	36.0	135,360	1,370	49.0	67,130
1981	3,750	96.0	360,000	3,450	28.5	98,325	1,600	44.0	70,400
1982	4,000	114.0	456,000	3,700	36.0	133,200	1,200	43.0	51,600
1983	2,800	80.0	224,000	3,280	32.0	104,960	1,200	49.0	58,800
1984	3,900	118.0	460,200	3,770	36.5	137,605	1,100	44.0	48,400
1985	4,030	127.0	511,810	3,870	41.5	160,605	950	62.0	58,900
1986	3,720	128.0	476,160	3,620	40.5	146,610	1,050	46.0	48,300
1987	3,020	120.0	362,400	3,980	37.0	147,260	800	58.0	46,400

Year	Oats			All Hay (Tons)			5 Major Crops
	Harvested acres	Yield	Production	Harvested acres	Yield	Production	Acres 1/
	Thou.	Bu./acre	Thou. bu.	Thou.	Bu./acre	Thou. bu.	Thousands
1980	290	67.0	19,430	1,430	2.51	3,588	11,040
1981	270	63.0	17,010	1,420	2.53	3,599	10,890
1982	340	69.0	23,460	1,340	2.64	3,543	10,910
1983	240	64.0	15,360	1,260	2.57	3,244	9,080
1984	220	63.0	13,860	1,350	2.81	3,795	10,620
1985	310	85.0	26,350	1,450	3.17	4,600	10,860
1986	160	76.0	12,160	1,460	2.95	4,307	10,220
1987	250	70.0	17,500	1,450	3.05	4,423	9,700

1/ Corn and soybeans planted plus hay, wheat and oats harvested.

FARM REAL ESTATE: VALUE AND CASH RENTS, OHIO, 1980-88

Year	Average value per acre 1/			Cash rent per acre 2/		
	Index 3/	Actual	% Prev. Year	Cropland	Pasture	Whole Farms
		Dollars			Dollars	
1980	156	1,730	117	81.80	27.80	72.00
1981	160	1,831	106	87.70	27.30	78.60
1982	137	1,629	89	88.40	28.10	80.80
1983	121	1,504	92	89.10	25.40	77.80
1984	116	1,444	96	79.96	22.50	71.78
1985	90	1,126	78	72.60	25.90	72.20
1986	81	1,013	90	70.30	24.90	65.90
1987	75	942	93	63.20	25.10	58.40
1988	79	991	105	65.60	28.40	62.00

1/Averages for this historic series use census of agriculture data for benchmarks and in intercensal years are based on sample surveys of farmers, farm real estate brokers, land appraisers, local banks, and county officials. 2/Rents are based on a March 1 survey of farmers until 1981. For 1982-1985 the survey was conducted April 1. Beginning in 1986 the survey conducted February 1. 3/1977=100 (base year).

CASH RENTS BY AGRICULTURAL STATISTICS DISTRICT, OHIO, 1986-88

Dist	Farms Rented for cash rent per acre			Cropland rented for cash rent per acre			Pasture rented for cash rent per acre		
	1986	1987	1988	1986	1987	1988	1986	1987	1988
	Dollars			Dollars			Dollars		
10	85	75	80	85	80	80	30	30	35
20	75	65	65	75	70	70	30	30	30
30	40	35	45	40	35	45	20	20	25
40	85	75	75	85	75	75	30	30	35
50	70	55	60	70	60	65	25	30	30
60	40	40	45	55	45	50	25	25	30
70	80	70	75	85	75	75	30	30	35
80	45	45	45	50	50	50	25	25	30
90	40	30	35	50	50	50	20	20	25

WEATHER STATIONS

Location	Abbreviations	Location	Abbreviations
NORTHWEST		**SOUTHWEST**	
Hoytville	HYTVL	Cincinnati	CVG
Findlay	FNY	Dayton	DAY
Fremont	FREMT	Ripley	RIPLY
Pandora	PAN	South Charleston	SCHSN
Toledo	TOL	Wilmington	WLMGT
Willard	WLLRD	Oxford	OXF
NORTHEAST		**SOUTHEAST**	
Akron-Canton	CAK	Caldwell	CLDWL
Canfield-Mahoning	CNFLD	Jackson	JCKSN
Cleveland	CLE	Zanesville	ZZV
Wooster	WOSTR	Huntington, WV	HTS
Youngstown	YNG	Parkersburg, WV	PKB
Grape Branch			
		CENTRAL	
Celina	CLINA	Mansfield	MFD
Columbus	CMH	Marion	MAR
Columbus (OSU)	OSU	Delaware	DEL
Coshocton	CHSTN	Circleville	CRCVL

MONTHLY PRECIPITATION AND DEVIATIONS FOR 1987 1/

MONTH	MONTH	DEV	ACCUM	ACCUM DEV	MONTH	DEV	ACCUM	ACCUM DEV	MONTH	DEV	ACCUM	ACCUM DEV
	HOYTVILLE				FINDLAY				FREMONT			
APR	1.34	-1.60	1.34	-1.60	1.35	-1.59	1.35	-1.59	1.80	-1.14	1.80	-1.14
MAY	2.27	-.77	3.61	-2.37	3.48	.44	4.83	-1.15	2.69	-.35	4.49	-1.49
JUN	3.99	1.05	7.60	-1.32	5.21	2.27	10.04	1.12	5.29	2.35	9.78	.86
JUL	1.96	-1.08	9.56	-2.40	3.09	.05	13.13	1.17	5.02	1.98	14.80	2.84
AUG	2.94	.16	12.50	-2.24	5.31	2.27	18.44	3.44	4.21	1.17	19.01	4.01
SEP	1.30	-.66	13.80	-2.90	.69	-1.30	19.13	2.14	2.35	.29	21.36	4.30
OCT	1.52	-.51	15.32	-3.41	1.88	.34	21.01	2.48	1.85	.35	23.21	4.65
NOV	1.88	-.08	17.20	-3.49	1.84	-.12	22.85	2.36	2.40	.44	25.61	5.09
	TOLEDO				WILLARD				AKRON CANTON			
APR	1.62	-.96	1.62	-.96	1.86	-1.08	1.86	-1.08	3.68	.74	3.68	.74
MAY	2.48	.16	4.10	-.80	3.73	.69	5.59	-.39	2.54	-.50	6.22	.24
JUN	4.66	1.72	8.76	.92	5.26	2.32	10.85	1.93	3.53	.59	9.75	.83
JUL	2.48	-.56	11.24	.36	4.85	1.81	15.70	3.74	1.89	-1.38	11.64	-.55
AUG	4.67	1.73	15.91	2.09	7.61	4.57	23.31	8.31	3.50	.46	15.14	-.09
SEP	2.19	.23	18.10	2.32	1.85	-.80	25.16	7.51	2.61	.26	17.75	.17
OCT	2.27	.80	20.37	3.12	1.94	-.09	27.10	7.43	2.05	.02	19.80	.19
NOV	2.59	.63	22.96	3.74	1.56	-.40	28.66	7.03	1.38	-.58	21.18	-.39
	CANFIELD				CLEVELAND				WOOSTER			
APR	2.30	-.64	2.30	-.64	3.24	.30	3.24	.30	1.80	-1.14	1.80	-1.14
MAY	3.24	.20	5.54	-.44	2.08	-.96	5.32	-.66	2.50	-.54	4.30	-1.68
JUN	3.69	.68	9.23	.24	7.53	4.59	12.85	3.93	4.20	1.26	8.50	-.42
JUL	4.19	.30	13.42	.54	2.59	-.45	15.44	3.48	3.95	.13	12.45	-.30
AUG	4.94	1.90	18.36	2.44	5.38	2.34	20.82	5.82	3.94	.87	16.39	.57
SEP	2.16	-.49	20.52	1.96	2.12	-.20	22.94	5.62	2.74	.13	19.13	.70
OCT	2.38	.35	22.90	2.31	3.05	1.02	25.99	6.64	1.61	-.42	20.74	.28
NOV	1.52	-.44	24.42	1.87	.99	-.97	26.98	5.67	.87	-1.09	21.61	-.81
	YOUNGSTOWN				CELINA				COLUMBUS			
APR	3.39	.45	3.39	.45	2.12	-.82	2.12	-.82	1.94	-1.00	1.94	-1.00
MAY	2.50	-.54	5.89	-.09	4.72	1.68	6.84	.86	2.65	-.39	4.59	-1.39
JUN	6.33	3.39	12.22	3.30	2.94	.00	9.78	.86	3.48	-.08	8.07	-1.47
JUL	2.21	-1.29	14.43	2.01	6.34	3.30	16.12	4.16	2.04	-1.62	10.11	-3.09
AUG	6.37	3.33	20.80	5.34	5.01	2.92	21.13	7.08	2.87	-.17	12.98	-3.26
SEP	3.93	1.28	24.73	6.63	.58	-1.41	21.71	5.66	1.58	-.64	14.56	-3.90
OCT	2.33	.30	27.06	6.93	1.59	-.44	23.30	5.23	1.58	.08	16.14	-3.83
NOV	1.55	-.41	28.61	6.52	2.33	.37	25.63	5.60	1.63	-.33	17.77	-4.16
	OSU COLUMBUS				COSHOCTON				MANSFIELD			
APR	2.63	-.31	2.63	-.31	2.63	-.31	2.63	-.31	3.89	.95	3.89	.95
MAY	2.09	-.95	4.72	-1.26	4.77	1.73	7.40	1.42	3.91	.87	7.80	1.82
JUN	3.74	.18	8.46	-1.08	5.29	1.99	12.69	3.41	5.62	2.68	13.42	4.50
JUL	3.40	-.26	11.86	-1.34	2.99	-1.06	15.68	2.35	4.59	1.55	18.01	6.05
AUG	2.55	-.49	14.41	-1.83	4.72	1.48	20.40	3.83	7.08	4.04	25.09	10.09
SEP	1.34	-.88	15.75	-2.71	1.38	-1.04	21.78	2.79	.58	-1.90	25.67	8.19
OCT	1.57	.07	17.32	-2.65	1.55	-.48	23.33	2.32	2.16	.49	27.83	8.68
NOV	1.50	-.46	18.82	-3.11	1.41	-.55	24.74	1.77	1.52	-.44	29.35	8.24
	MARION				DELAWARE				CIRCLEVILLE			
APR	1.85	-1.09	1.85	-1.09	1.18	-1.76	1.18	-1.76	2.84	-.10	2.84	-.10
MAY	6.00	2.96	7.85	1.87	2.76	-.28	3.94	-2.04	5.16	1.86	8.00	1.76
JUN	6.87	3.93	14.72	5.80	4.51	1.57	8.45	-.47	2.75	-.19	10.75	1.57
JUL	9.08	6.04	23.80	11.84	4.73	1.36	13.18	.89	2.00	-1.86	12.75	-.29
AUG	3.36	.32	27.16	12.16	1.76	-1.28	14.94	-.39	1.68	-1.46	14.43	-1.75
SEP	.94	-1.51	28.10	10.65	1.23	-.99	16.17	-1.38	1.24	-1.44	15.67	-3.19
OCT	2.74	.71	30.84	11.36	1.84	-.19	18.01	-1.57	1.48	-.55	17.15	-3.73
NOV	1.48	-.48	32.32	10.88	1.47	-.49	19.48	-2.06	1.74	-.22	18.89	-3.95
	CINCINNATI				DAYTON				RIPLEY			
APR	2.88	-.06	2.88	-.06	2.84	-.10	2.84	-.10	2.81	-.26	2.81	-.26
MAY	2.73	-.31	5.61	-.37	2.50	-.54	5.34	-.64	2.19	-.85	5.00	-1.11
JUN	3.55	-.21	9.16	-.58	2.83	-.11	8.17	-.75	2.51	-.43	7.51	-1.54
JUL	5.55	1.73	14.71	1.15	3.85	.81	12.02	.06	4.44	.45	11.95	-1.09
AUG	2.35	-.17	17.06	.98	.61	-2.10	12.63	-2.04	1.11	-2.58	13.06	-3.67
SEP	1.18	-.78	18.24	.20	.32	-1.64	12.95	-3.68	3.49	.71	16.55	-2.96
OCT	1.42	-.61	19.66	-.41	1.26	-.50	14.21	-4.19	.75	-1.28	17.30	-4.24
NOV	1.80	-.91	21.46	-1.32	1.95	-.01	16.16	-4.20	2.21	-.37	19.51	-4.61
	S CHARLESTON				WILMINGTON				OXFORD			
APR	2.51	-.43	2.51	-.43	2.32	-1.60	2.32	-1.60	1.00	-1.94	1.00	-1.94
MAY	3.11	-.42	5.62	-.85	3.28	-.77	5.60	-2.37	2.56	-.48	3.56	-2.42
JUN	3.94	.97	9.56	.12	2.20	-1.72	7.80	-4.10	1.27	-1.83	4.83	-4.25
JUL	2.55	-1.37	12.11	-1.26	3.34	-.39	11.14	-4.48	6.66	2.77	11.49	-1.48
AUG	1.67	-1.37	13.78	-2.63	2.52	-.52	13.66	-5.00	1.11	-1.93	12.60	-3.41
SEP	.75	-1.64	14.53	-4.26	1.94	-.81	15.60	-5.81	.46	-2.19	13.06	-5.60
OCT	1.46	-.57	15.99	-4.83	1.41	-.62	17.01	-6.42	1.28	-.75	14.34	-6.35
NOV	1.97	.01	17.96	-4.82	1.64	-1.20	18.65	-7.62	2.22	.26	16.56	-6.09
	CALDWELL				JACKSON				ZANESVILLE			
APR	3.15	.21	3.15	.21	2.06	-1.18	2.06	-1.18	2.80	-.14	2.80	-.14
MAY	1.95	-1.15	5.10	-.95	2.86	-.18	4.92	-1.35	3.38	.34	6.18	.20
JUN	3.64	-.28	8.74	-1.23	2.56	-.48	7.48	-1.83	4.11	.38	10.29	.58
JUL	1.74	-2.31	10.48	-3.54	4.32	.27	11.80	-1.57	1.42	-2.63	11.71	-2.05
AUG	3.85	.55	14.33	-2.99	1.33	-2.13	13.13	-3.70	2.93	-.37	14.64	-2.42
SEP	1.74	-.71	16.07	-3.70	1.61	-1.23	14.74	-4.93	1.72	-.50	16.36	-2.92
OCT	1.58	-.45	17.65	-4.15	.85	-1.18	15.59	-6.11	1.59	-.44	17.95	-3.36
NOV	1.93	-.03	19.58	-4.18	1.70	-.26	17.29	-6.37	1.49	-.47	19.44	-3.83
	HUNTINGTON				PARKERSBURG							
APR	4.82	1.88	4.82	1.88	4.09	1.15	4.09	1.15				
MAY	3.50	-.45	8.32	1.42	1.39	-1.65	5.48	-.50				
JUN	3.05	-.87	11.37	.55	2.19	-.75	7.67	-1.25				
JUL	2.97	-1.08	14.34	-.53	1.28	-2.25	8.95	-3.50				
AUG	1.19	-2.34	15.53	-2.87	3.80	.60	12.75	-2.90				
SEP	2.35	-.30	17.88	-3.17	2.23	-.12	14.98	-3.03				
OCT	.61	-1.42	18.49	-4.58	1.26	-.77	16.24	-3.79				
NOV	2.51	.55	21.00	-4.03	2.18	.22	18.42	-3.57				

1/ DEVIATIONS FROM NORMAL RAINFALL ARE DERIVED USING THE AVERAGE RAINFALL OVER A 30-YEAR PERIOD. THESE NORMALS ARE UPDATED EACH DECADE, AND WEATHER STATIONS WITHOUT DEVIATIONS HAD LESS THAN 30 YEARS OF DATA DURING THE PERIOD 1951-80.

MONTHLY GROWING DEGREE DAYS, (BASE 50) SEASON ACCUMULATION, DEVIATIONS FROM NORMAL, 1/1987

MONTH	MONTH	DEV	ACCUM	ACCUM DEV	MONTH	DEV	ACCUM	ACCUM DEV	MONTH	DEV	ACCUM	ACCUM DEV
	HOYTVILLE				FINDLAY				FREMONT			
APR	196	24	196	24	189	52	189	52	167	53	167	53
MAY	445	84	641	108	497	167	686	219	449	132	616	185
JUN	623	24	1264	132	663	90	1349	309	629	46	1245	231
JUL	728	-1	1992	131	762	55	2111	364	738	3	1983	234
AUG	636	-32	2628	99	692	42	2803	406	620	-66	2603	168
SEP	477	21	3105	120	501	76	3304	482	452	-7	3055	161
OCT	133	-105	3238	15	134	-68	3438	414	126	-76	3181	85
NOV	113	85	3351	100	130	115	3568	529	90	70	3271	155
	TOLEDO				WILLARD				AKRON CANTON			
APR	193	57	193	57	169	12	169	12	185	46	185	46
MAY	450	129	643	186	500	171	669	183	446	132	631	178
JUN	648	115	1291	301	619	83	1288	266	616	88	1247	266
JUL	741	68	2032	369	739	81	2027	347	746	78	1993	344
AUG	663	50	2695	419	634	21	2661	368	656	30	2649	374
SEP	481	84	3176	503	454	42	3115	410	450	44	3099	418
OCT	128	-74	3304	429	138	-78	3253	332	114	-80	3213	338
NOV	112	98	3416	527	136	113	3389	445	118	101	3331	439
	CANFIELD				CLEVELAND				WOOSTER			
APR	183	18	183	18	170	51	170	51	183	46	183	46
MAY	417	84	600	102	448	153	618	204	445	141	628	187
JUN	579	77	1179	179	621	99	1239	303	594	95	1222	282
JUL	691	67	1870	246	763	98	2002	401	719	88	1941	370
AUG	571	-20	2441	226	659	35	2661	436	618	31	2559	401
SEP	408	4	2849	230	457	42	3118	478	440	57	2999	458
OCT	117	-103	2966	127	128	-67	3246	411	141	-53	3140	405
NOV	121	96	3087	223	119	100	3365	511	132	116	3272	521
	YOUNGSTOWN				CELINA				COLUMBUS			
APR	194	75	194	75	232	46	232	46	223	38	223	38
MAY	445	156	639	231	536	162	768	208	562	191	785	229
JUN	613	130	1252	361	700	103	1468	311	687	88	1472	317
JUL	737	123	1989	484	765	40	2233	351	789	55	2261	372
AUG	605	24	2594	508	726	56	2959	407	743	57	3004	429
SEP	419	49	3013	557	534	81	3493	488	554	93	3558	522
OCT	109	-67	3122	490	167	-75	3660	413	188	-44	3746	478
NOV	119	109	3241	599	158	128	3818	541	168	138	3914	616
	OSU COLUMBUS				COSHOCTON				MANSFIELD			
APR	211	26	211	26	183	-19	183	-19	170	37	170	37
MAY	477	106	688	132	458	84	641	65	470	162	640	199
JUN	641	42	1329	174	648	83	1289	148	616	83	1256	282
JUL	735	1	2064	175	761	80	2050	228	739	65	1995	347
AUG	695	9	2759	184	667	20	2717	248	648	16	2643	363
SEP	552	91	3311	275	463	23	3180	271	458	44	3101	407
OCT	183	-49	3494	226	165	-82	3345	189	121	-77	3222	330
NOV	170	140	3664	366	145	103	3490	292	132	117	3354	447
	MARION				DELAWARE				CIRCLEVILLE			
APR	203	59	203	59	210	32	210	32	229	-8	229	-8
MAY	473	152	676	211	506	156	716	188	561	136	790	128
JUN	650	111	1326	322	632	71	1348	259	659	19	1449	147
JUL	747	72	2073	394	745	49	2093	308	754	-12	2203	135
AUG	663	51	2736	445	660	19	2753	327	690	-31	2893	104
SEP	492	84	3228	529	501	72	3254	399	566	55	3459	159
OCT	159	-53	3387	476	168	-64	3422	335	227	-59	3686	100
NOV	161	140	3548	616	152	120	3574	455	183	121	3869	221
	CINCINNATI				DAYTON				RIPLEY			
APR	234	16	234	16	206	7	206	7	226	-24	226	-24
MAY	634	225	868	241	570	135	776	142	572	153	798	129
JUN	703	65	1571	306	674	-9	1450	133	673	55	1471	184
JUL	788	10	2359	316	782	-24	2232	109	768	27	2239	211
AUG	770	33	3129	349	724	-44	2956	65	724	15	2963	226
SEP	596	85	3725	434	561	26	3517	91	555	56	3518	282
OCT	195	-63	3920	371	171	-86	3688	5	198	-84	3716	198
NOV	182	135	4102	506	161	121	3849	126	169	96	3885	294
	S CHARLESTON				WILMINGTON				OXFORD			
APR	199	5	199	5	204	5	204	5	212	-39	212	-39
MAY	531	160	730	165	538	161	742	166	545	110	757	71
JUN	642	58	1372	223	633	43	1375	209	642	-13	1399	58
JUL	728	21	2100	244	731	21	2106	230	726	-43	2125	15
AUG	670	11	2770	255	667	0	2773	230	669	-57	2794	-42
SEP	513	60	3283	315	504	48	3277	278	523	4	3317	-38
OCT	175	-67	3458	248	175	-73	3452	205	186	-108	3503	-146
NOV	152	118	3610	366	156	118	3608	323	162	93	3665	-53
	CALDWELL				JACKSON				ZANESVILLE			
APR	205	-20	205	-20	225	-8	225	-8	212	24	212	24
MAY	506	125	711	105	553	161	778	153	518	158	730	182
JUN	647	84	1358	189	645	78	1423	231	672	112	1402	294
JUL	751	71	2109	260	741	38	2164	269	760	66	2162	360
AUG	712	59	2821	319	705	46	2869	315	700	50	2862	410
SEP	509	55	3330	374	539	85	3408	400	524	87	3386	497
OCT	159	-101	3489	273	213	-58	3621	342	166	-66	3552	431
NOV	169	120	3658	393	190	123	3811	465	171	135	3723	566
	HUNTINGTON				PARKERSBURG							
APR	246	-51	246	-51	231	-21	231	-21				
MAY	623	144	869	93	566	160	797	139				
JUN	707	25	1576	118	700	137	1497	276				
JUL	794	12	2370	130	777	82	2274	358				
AUG	791	30	3161	160	773	114	3047	472				
SEP	597	34	3758	194	551	94	3598	566				
OCT	225	-87	3983	107	189	-91	3787	475				
NOV	220	117	4203	224	189	123	3976	598				

1/ DEVIATIONS FROM NORMAL GROWING DEGREE DAYS (GDD) ARE DERIVED USING GDD OVER A 30-YEAR PERIOD. THESE NORMALS ARE UPDATED EACH DECADE, AND STATIONS WITHOUT DEVIATIONS HAD LESS THAN 30 YEARS OF DATA DURING THE PERIOD 1951-80.

AVERAGE WEEKLY SOIL TEMPERATURES 1987

WEEK ENDING	HOYTVILLE		FREMONT		WILLARD		GRAPE BRANCH		CANFIELD	
	G	B	G	B	G	B	G	B	G	B
APR 6	..	36	40	37	40	38	..	37	..	36
13	..	44	45	46	38	38	..	45	..	45
20	..	50	52	53	49	50	..	52	..	52
27	..	54	55	54	57	58	..	56	..	56
MAY 4	..	50	52	53	53	54	..	51	..	49
11	..	52	54	55	55	56	..	56	..	55
18	..	59	61	63	62	65	..	65	..	63
25	..	62	67	66	69	70	..	66	..	66
JUN 1	..	68	71	72	70	72	..	75	..	71
8	..	67	71	68	69	70	..	73	..	71
15	..	69	71	69	68	70	..	71	..	70
22	..	74	76	75	71	78	..	79	..	76
29	..	70	73	72	72	74	..	74	..	73
JUL 6	..	67	73	70	67	67	..	72	..	70
13	..	74	77	76	72	76	..	80	..	76
20	..	72	75	73	74	73	..	76	..	75
27	..	76	81	81	74	73	..	85	..	81
AUG 3	..	75	80	77	80	79	..	81	..	77
10	..	75	78	78	76	77	..	77	..	75
17	..	73	76	77	74	75	..	79	..	73
24	..	72	74	74	72	76	..	77	..	73
31	..	62	69	65	71	69	..	66	..	64
SEP 7	..	64	67	65	69	65	..	65	..	62
14	..	68	70	71	68	69	..	69	..	68
21	..	64	70	66	69	69	..	66	..	66
28	..	57	64	60	65	62	..	61	..	60
OCT 5	..	55	59	56	60	59	..	57	..	56
12	..	48	54	49	47	53	..	50	..	49
19	..	49	52	52	54	51	..	50	..	49
26	..	44	52	51	51	50	..	47	..	47
NOV 2	..	43	51	50	50	47	..	44	..	45
9	..	48	50	49	52	49	..	50	..	50

WEEK ENDING	WOOSTER		CELINA		MARION		OSU COLUMBUS		COSHOCTON	
	G	B	G	B	G	B	G	B	G	B
APR 6	38	37	41	42	36	35	43	38	41	38
13	42	45	47	53	44	45	45	46	44	45
20	50	54	53	59	52	51	53	54	52	52
27	52	57	58	65	57	58	58	61	59	57
MAY 4	44	50	56	58	52	53	56	59	55	52
11	43	50	57	65	56	57	58	62	57	55
18	49	56	63	73	62	65	64	69	63	64
25	55	62	69	76	68	69	69	74	70	70
JUN 1	59	65	73	79	72	72	73	76	74	74
8	57	71	73	76	69	70	71	72	72	71
15	58	68	73	80	70	70	71	78	72	70
22	62	74	78	86	74	76	76	82	77	76
29	60	73	75	82	73	72	73	79	75	74
JUL 6	65	70	73	78	69	71	73	74	74	71
13	71	76	77	82	76	77	77	80	78	77
20	67	74	77	79	74	75	75	78	76	74
27	72	80	82	88	72	83	79	86	80	82
AUG 3	70	77	80	83	77	80	78	84	78	79
10	70	77	81	86	79	78	78	78	77	77
17	69	75	78	84	77	76	77	80	74	75
24	67	73	77	83	74	75	75	77	75	75
31	63	68	70	73	72	68	72	72	69	67
SEP 7	60	64	70	74	70	66	70	70	68	65
14	66	69	73	78	66	71	72	72	70	70
21	64	68	71	75	67	67	70	69	69	67
28	57	62	65	70	64	62	66	64	64	61
OCT 5	49	58	61	62	60	55	62	59	60	57
12	43	53	57	58	49	50	55	53	55	51
19	40	51	55	59	48	50	56	54	54	51
26	38	49	53	54	45	46	52	51	51	47
NOV 2	40	48	50	52	47	48	52	52	50	47
9	50	51	54	57	49	51	54	52	53	50

AVERAGE WEEKLY SOIL TEMPERATURE 1987

WEEK ENDING	DELAWARE		CIRCLEVILLE		RIPLEY		S. CHARLESTON		WILMINGTON	
	G	B	G	B	G	B	G	B	G	B
APR 6	39	38	..	36	41	40	..	35	38	38
13	44	47	..	44	44	46	..	45	46	46
20	53	56	..	52	53	56	..	50	52	54
27	59	62	..	56	58	61	..	57	58	60
MAY 4	56	60	..	54	58	62	..	57	56	60
11	59	64	..	57	60	65	..	58	58	59
18	65	70	..	65	65	70	..	64	64	70
25	72	76	..	69	71	76	..	69	71	75
JUN 1	75	79	..	73	74	78	..	71	73	77
8	73	75	..	71	73	75	..	70	73	74
15	72	76	..	71	73	77	..	71	72	75
22	78	84	..	76	76	81	..	77	76	81
29	76	78	..	72	75	79	..	74	74	78
JUL 6	75	78	..	71	76	79	..	70	74	77
13	77	82	..	76	78	80	..	74	77	79
20	75	79	..	75	76	78	..	73	75	76
27	79	85	..	81	80	86	..	80	79	84
AUG 3	78	81	..	79	79	82	..	77	78	82
10	79	82	..	79	81	85	..	75	78	82
17	78	84	..	78	80	84	..	75	77	82
24	76	80	..	77	79	82	..	74	75	79
31	71	73	..	70	74	76	..	67	70	71
SEP 7	68	72	..	68	74	76	..	67	68	71
14	72	76	..	71	69	76	..	70	70	74
21	68	71	..	69	72	72	..	65	68	69
28	63	65	..	64	66	67	..	60	62	64
OCT 5	59	59	..	61	62	61	..	57	57	59
12	52	52	..	54	56	55	..	50	52	52
19	52	52	..	53	54	55	..	49	50	51
26	50	50	..	50	52	52	..	46	47	48
NOV 2	50	51	..	49	52	52	..	46	47	48
9	52	55	..	53	54	55	..	51	49	53

WEEK ENDING	OXFORD		CALDWELL		JACKSON	
	G	B	G	B	G	B
APR 6	..	41	..	41	..	39
13	..	51	..	43	..	45
20	..	56	..	53	..	54
27	..	61	..	59	..	57
MAY 4	..	61	..	57	..	57
11	..	64	..	59	..	59
18	..	70	..	68	..	66
25	..	75	..	71	..	73
JUN 1	..	76	..	76	..	76
8	..	74	..	74	..	73
15	..	76	..	74	..	72
22	..	80	..	80	..	79
29	..	78	..	74	..	76
JUL 6	..	77	..	75	..	76
13	..	79	..	79	..	78
20	..	76	..	79	..	75
27	..	83	..	85	..	81
AUG 3	..	78	..	83	..	79
10	..	80	..	80	..	79
17	..	79	..	80	..	80
24	..	79	..	76	..	77
31	..	72	..	71	..	72
SEP 7	..	74	..	71	..	70
14	..	76	..	71	..	72
21	..	72	..	69	..	70
28	..	67	..	64	..	64
OCT 5	..	63	..	60	..	58
12	..	54	..	53	..	53
19	..	54	..	53	..	52
26	..	50	..	51	..	52
NOV 2	..	50	..	50	..	50
9	..	54	..	55	..	54

G=GRASS B=BARE

LAST OCCURRENCE OF CRITICAL FAHRENHEIT TEMPERATURES IN SPRING 1987

STATIONS	20		24		28		30		32		36		40		43	
	MO.	DAY	MO.	DAY	MO.	DAY	MO.	DAY	MO.	DAY	MO.	DAY	MC.	DAY	MO.	DAY
HOYTVILLE	4	4	4	4	4	10	4	10	4	26	5	17	5	17	6	6
FREMONT	4	1	4	3	4	4	4	9	4	10	5	5	5	16	5	16
WILLARD	4	1	4	3	4	11	5	1	5	7	5	17	5	17	5	17
CELINA	3	13	4	4	4	5	4	10	5	6	5	6	5	17	5	17
S CHARLESTON	4	2	4	4	4	5	4	10	4	10	5	9	5	9	5	17
RIPLEY	3	11	4	5	4	5	4	5	4	9	4	11	5	6	5	16
WOOSTER	4	2	4	2	4	10	4	10	4	11	5	17	6	11	6	12
CANFIELD	4	2	4	2	4	11	5	7	5	9	5	17	6	12	6	12
COSHOCTON	3	12	4	6	4	6	4	6	4	6	4	25	5	5	5	18
OSU COLUMBUS	4	1	4	6	4	S	4	9	4	10	5	8	5	18	5	18
CALDWELL	3	12	4	2	4	5	4	5	4	10	5	2	5	9	6	11
JACKSON	3	22	4	2	4	11	4	11	5	7	5	17	5	17	6	11
GRAPE BRANCH	4	2	4	2	5	7	5	7	5	7	5	17	6	12	6	12
WILMINGTON	3	12	4	3	4	5	4	5	4	10	5	7	5	8	5	16
MARION	3	17	4	3	4	5	4	9	4	9	5	17	5	17	5	17
CIRCLEVILLE	3	22	4	1	4	4	4	10	4	11	5	6	5	9	5	16
OXFORD	3	12	4	4	4	5	4	10	4	10	5	7	5	17	6	12
DELAWARE	3	18	4	4	4	10	4	10	4	11	5	17	5	17	6	11
AKRON CANTON	4	1	4	1	4	4	4	9	4	9	5	5	5	16	6	10
CINCINNATI	3	10	4	1	4	4	4	4	4	4	4	9	5	1	5	9
CLEVELAND	4	1	4	1	4	9	4	9	4	9	5	6	5	16	6	10
COLUMBUS	3	11	4	3	4	3	4	4	4	9	5	6	5	8	5	16
DAYTON	3	11	4	3	4	4	4	4	4	9	5	5	5	16	5	16
FINDLAY	3	12	4	3	4	3	4	4	4	9	4	30	5	6	5	16
MANSFIELD	4	1	4	3	4	4	4	9	4	9	5	5	5	16	5	16
TOLEDO	4	3	4	3	4	9	4	9	4	10	5	8	5	16	6	10
YOUNGSTOWN	4	1	4	1	4	4	4	4	5	1	5	16	6	11	6	11
ZANESVILLE	3	17	4	1	4	4	4	9	4	10	5	6	5	9	6	10
HUNTINGTON	2	9	3	10	4	4	4	4	4	5	5	6	5	6	5	9
PARKERSBURG	3	10	4	1	4	1	4	8	4	10	5	1	5	9	6	10

FIRST OCCURRENCE OF CRITICAL FAHRENHEIT TEMPERATURES IN FALL 1987

STATIONS	20		24		28		30		32		36		40		43	
	MO.	DAY	MO.	DAY	MO.	DAY	MO.	DAY	MO.	DAY	MO.	DAY	MO.	DAY	MO.	DAY
HOYTVILLE	11	22	11	21	10	14	10	4	10	4	9	27	8	25	8	25
FREMONT	11	21	11	21	10	13	10	13	10	4	10	1	10	1	10	1
WILLARD	11	21	11	20	10	13	10	3	10	3	9	26	9	26	9	4
CELINA	11	22	11	12	11	7	10	14	10	5	10	2	10	1	8	25
S CHARLESTON	11	22	10	23	10	5	10	4	10	2	10	2	9	24	9	2
RIPLEY	11	21	10	22	10	22	10	4	10	4	10	4	10	1	9	26
WOOSTER	11	22	10	27	10	14	10	5	9	27	9	27	9	26	9	5
CANFIELD	10	27	10	15	10	14	10	9	10	9	9	26	9	4	8	25
COSHOCTON	11	21	11	13	10	22	10	22	10	5	10	5	10	4	9	28
OSU COLUMBUS	11	21	11	12	10	22	10	4	10	4	10	4	9	26	9	26
CALDWELL	11	22	11	12	10	23	10	5	10	5	10	4	9	27	9	27
JACKSON	10	27	10	5	10	4	10	4	10	4	9	27	9	3	9	2
GRAPE BRANCH	11	22	11	21	10	26	10	26	10	22	10	9	10	6	9	26
WILMINGTON	11	21	11	12	10	13	10	4	10	4	10	2	9	26	9	1
MARION	11	21	11	14	10	13	10	13	10	4	9	26	9	26	9	26
CIRCLEVILLE	11	21	10	22	10	4	10	4	10	4	9	26	9	26	9	1
OXFORD	11	13	10	23	10	14	10	5	10	5	10	2	9	27	9	2
DELAWARE	11	22	11	12	10	5	10	4	10	4	9	27	9	26	9	2
AKRON CANTON	11	21	11	12	11	11	10	22	10	12	10	4	10	4	9	26
CINCINNATI	11	21	10	22	10	22	10	4	10	4	10	1	10	1	10	1
CLEVELAND	11	22	11	21	10	26	10	22	10	13	10	4	10	4	9	25
COLUMBUS	11	21	11	12	10	22	10	4	10	4	10	4	9	26	9	26
DAYTON	11	21	11	21	10	22	10	4	10	4	10	3	9	26	9	26
FINDLAY	11	21	11	21	10	26	10	4	10	4	10	4	9	26	9	26
MANSFIELD	11	21	11	21	10	26	10	13	10	4	10	4	9	26	9	25
TOLEDO	11	21	10	26	10	4	10	4	10	4	10	1	9	25	8	24
YOUNGSTOWN	11	21	10	26	10	14	10	13	10	13	10	9	9	25	8	25
ZANESVILLE	11	21	11	12	10	14	10	4	10	4	10	4	9	26	9	26
HUNTINGTON	11	22	10	22	10	14	10	4	10	4	10	4	10	4	9	26
PARKERSBURG	11	21	11	11	10	22	10	4	10	4	10	4	10	4	9	26

CORN: Development by selected dates, Ohio, 1987, 1986 and 1982-86 average

Date	Planted			Silked			Dent		
	1987	1986	Average	1987	1986	Average	1987	1986	Average
	Percent			Percent			Percent		
Apr. 30	29	20	24						
May 5	52	41	38						
10	75	85	54						
15	88	85	69						
20	94	89	76						
25	98	94	81						
30	100	98	87						
Jun. 5		100	92						
10			97						
15			99						
20			100						
Jul. 10				40	20				
15				66	40	23			
20				81	64	41			
25				90	81	59			
30				95	90	77			
Aug. 5				100	97	90	15	9	
10					100	95	32	18	
15						98	50	26	24
20						100	72	37	29
25							83	54	44
30							91	77	61
Sept 5							98	88	78
10							100	93	89
15								97	95
20								100	100

CORN: Development by selected dates, Ohio, 1987, 1986 and 1982-86 average

Date	Mature			Harvested for grain			Harvested for silage		
	1987	1986	Average	1987	1986	Average	1987	1986	Average
	Percent			Percent			Percent		
Aug. 15	3						6		
20	10						11	8	8
25	21	5	3				20	12	11
30	32	10	6				33	17	16
Sep 5	46	19	15				49	26	22
10	61	31	31	3			60	39	29
15	74	46	48	8			69	50	39
20	84	61	63	14	5	5	76	59	48
25	90	72	76	20	9	8	83	67	57
30	96	81	87	28	13	11	89	73	66
Oct. 5	100	88	93	38	15	14	93	77	76
10		93	97	50	17	19	96	81	83
15		99	100	64	23	25	97	86	88
20		100		76	33	33	99	91	92
25				85	44	43	100	96	96
30				90	56	54		100	
Nov. 5				94	66	63			
10				98	74	71			
15				100	82	78			
20					87	83			
25					91	87			
30					93	90			
Dec. 5						93			

SOYBEANS: Crop development by selected dates, Ohio, 1987, 1986 and 1982-86 average

Date	Planted			Setting Pods		
	1987	1986	Average	1987	1986	Average
	Percent			Percent		
May 5	10	5	7			
10	19	21	16			
15	56	39	33			
20	69	52	45			
25	80	62	53			
30	88	68	61			
Jun. 5	92	82	73			
10	95	91	93			
20	100	94	97			
25		96	99			
30		99	100			
Jul. 5		100				
10						
15				12	2	
20				26	12	
25				43	23	
30				59	42	34
Aug. 5				80	73	55
10				91	90	69
15				96	94	81
20				100	100	89
25						96
30						100

SOYBEANS: Crop development by selected dates, Ohio, 1987, 1986 and 1982-86

Date	Leaves turning yellow			Mature			Harvested		
	1987	1986	Average	1987	1986	Average	1987	1986	Average
	Percent			Percent			Percent		
Aug 20	10								
25	28	11	7						
30	69	20	16						
Sep. 5	85	57	35	14					
10	97	76	55	30	4		5		
15	100	85	74	46	14	13	12	2	
20		92	90	62	31	25	20	8	7
25		97	97	76	52	42	29	13	12
30				87	69	60	39	16	18
Oct. 5				94	80	75	53	17	27
10				98	90	83	71	23	41
20					100	91	82	34	53
25						93	94	63	71
30						95	97	79	81
Nov. 5						97	98	85	86
10						98		90	89
15								94	92
20								95	94
25								96	96
30								97	97

WINTER WHEAT: Percent planted on selected dates, Ohio, 1987, 1986 and 1982-86 average

Date	Planted*		
	1987	1986	Average
	Percent		
Sep. 20	3	2	4
25	7	4	7
30	22	5	15
Oct 5	44	8	28
10	62	15	44
20	85	38	69
25	92	58	79
30	95	75	88
Nov. 5	97	84	93
10	99	90	95
15	100	96	98

*Planted for following year's harvest.

WINTER WHEAT: Crop development by selected dates, Ohio, 1987, 1986 and 1982-86 average

Date	Headed			Harvested		
	1987	1986	Average	1987	1986	Average
	Percent			Percent		
May 15	4	12				
20	25	30	22			
25	51	60	37			
30	80	83	56			
Jun. 5	95	92	78			
10	100	97	71			
15		100	96			
20						
25			99			
30				15	6	4
Jul. 5				33	16	9
10				49	52	28
15				80	69	56
20				94	82	82
25				98	93	94
30				99	97	98
Aug 5				100	100	100

OATS: Crop development by selected dates, Ohio, 1987, 1986 and 1982-86 average

Date	Planted			Headed			Harvested		
	1987	1986	Average	1987	1986	Average	1987	1986	Average
	Percent			Percent			Percent		
Apr. 5	38	28							
10	47	42	19						
15	51	56	26						
20	64	68	35						
25	78	75	50						
30	85	86	65						
May 5	90	94	77						
10	95	97	84						
15	99	100	89						
20	100		95						
Jun. 5				38	18	18			
10				58	36	33			
15				75	58	48			
20				84	72	61			
25				87	81	74			
30				92	89	85			
Jul. 5				98	96	94			
10							4	3	1
15							20	7	5
20							40	20	14
25							62	50	31
30							79	75	55
Aug. 5							88	86	72
10							94	94	84
15							98	96	91
20							100	100	96

OTHER HAY: Percent harvested on selected dates, Ohio, 1987, 1986 and 1982-86 average

Date	First cutting			Second cutting			Third Cutting		
	1987	1986	Average	1987	1986	Average	1987	1986	Average
	Percent			Percent			Percent		
May 25	14								
30	25	12	14						
Jun 5	37	26	25						
10	51	40	37						
15	65	52	50						
20	74	64	64						
25	83	74	75						
30	88	83	84						
Jul 5	91	88	90	14	10				
10	95	92	94	21	17	12			
15	98	97		30	25	22			
20				40	36	36			
25				50	50	51			
30				63	63	62			
Aug 5				74	70	69	5	7	
10				80	76	75	12	12	
15				85	80	79	18	17	17
20				88	86	83	24	24	28
25				91	91	88	33	31	37
30							43	40	44
Sept 5							50	50	52
10							60	60	61
15							62	68	71
20							66	74	81
25							73	78	87
30							80		

ALFALFA HAY: Percent harvested on selected dates, Ohio, 1987, 1986 and 1982-86 average

Date	First cutting			Second cutting			Third Cutting		
	1987	1986	Average	1987	1986	Average	1987	1986	Average
	Percent			Percent			Percent		
May 20	16								
25	30	17	14						
30	46	25	26						
Jun. 5	65	46	40						
10	79	60	54						
15	88	70	69						
20	94	80	81						
25	97	88	89	14	9				
30	100	94	95	22	16				
Jul. 5		96	97	32	26	18			
10		99	99	42	40	28			
15			100	52	52	44			
20				64	62	59			
25				75	75	73			
30				82	84	84			
Aug. 5				90	90	90	20	20	
10				95	94	93	31	29	21
15				98	96	96	42	38	31
20					97		51	45	45
25							59	56	57
30							69	69	69
Sept 5							76	80	80
10							82	86	87
15							85	90	92
20							89	94	95
25							93	98	99
30							97	100	

DAYS FAVORABLE FOR FIELD WORK: OHIO, 1987, 1986 AND AVERAGE 1982-86

Date	1987		1986		1982-86	
	7-day	Cumulative	7-day	Cumulative	7-day	Cumulative
			Number of days			
Apr. 8			0.6	0.6		
15	1.7	1.7	2.3	2.9	1.9	1.9
22	3.6	5.3	6.6	9.5	2.7	4.6
29	4.1	9.4	6.5	16.0	4.3	8.9
May 6	5.0	14.4	4.1	20.1	3.2	12.1
13	6.8	21.2	6.7	26.8	3.9	16.0
20	4.3	25.5	2.1	28.9	3.5	19.5
27	4.0	29.5	4.7	33.6	3.3	22.8
Jun. 3	3.8	33.3	4.1	37.7	3.4	26.2
10	5.2	38.5	5.0	42.7	4.5	30.7
17	5.3	43.8	1.4	44.1	3.9	34.6
24	4.4	48.2	5.0	49.1	4.9	39.5
Jul. 1	3.8	52.0	6.3	55.4	5.2	44.7
8	2.9	54.9	4.8	60.2	4.8	49.5
15	4.8	59.7	5.0	65.2	6.1	55.6
22	6.6	66.3	6.3	71.5	5.6	61.2
29	6.8	73.1	6.2	77.7	5.6	66.8
Aug. 5	6.2	79.3	5.5	83.2	5.5	72.3
12	6.5	85.8	4.2	87.4	5.4	77.7
19	6.8	92.6	5.1	92.5	6.3	84.0
26	5.5	98.1	5.0	97.5	6.0	90.0
Sep. 2	4.1	102.2	5.9	103.4	5.2	95.2
9	6.4	108.6	6.3	109.7	5.6	100.8
16	5.3	113.9	6.5	116.2	5.6	106.4
23	4.7	118.6	6.8	123.0	5.6	112.0
30	5.7	124.3	5.6	128.6	5.1	117.1
Oct. 7	3.3	127.6	6.1	134.7	5.5	122.6
14	6.1	133.7	5.2	139.9	5.3	127.9
21	5.4	139.1	4.3	144.2	4.6	132.5
28	6.7	145.8	5.6	149.8	4.4	136.9
Nov. 4			3.1	152.9	3.9	140.8
11			0.8	153.7	4.1	144.9
18			0.4	154.1	2.5	147.4
25			3.2	157.3		

MARKETINGS: WHEAT, OATS, CORN, SOYBEANS, PERCENT OF ANNUAL SALES BY MONTHS, OHIO, 1985-86, 1986-87

Month	Wheat		Oats		Month	Corn 1/		Soybeans	
	1985-86	1986-87	1985-86	1986-87		1985-86	1986-87	1985-86	1986-87
	Percent					Percent			
Jul.	59	65	35	31	Sep.		7	12	8
Aug.	11	8	28	12	Oct.	17	17	25	27
Sep.	6	3	5	4	Nov.	15	14	9	11
Oct.	2	2	2	5	Dec.	16	9	6	5
Nov.	4	1	2	4	Jan.	13	11	10	10
Dec.	3	2	2	8	Feb.	5	8	5	6
Jan.	5	4	5	8	Mar.	5	8	10	8
Feb.	2	2	5	5	Apr.	5	7	6	9
Mar.	3	1	7	6	May	5	6	5	6
Apr.	3	1	4	5	Jun.	5	5	5	4
May	1	1	3	5	Jul.	5	4	4	3
Jun.	1	10	2	7	Aug.	3	4	3	3
					Sep.	6			

1/ Marketing year changed to start September 1 beginning with 1986-87 year.

CONSUMPTION OF COMMERCIAL FERTILIZERS, OHIO, 1984 TO 1987

Specified mixtures and materials	Year ending June 30			
	1984	1985	1986 1/	1987 1/
	Tons			
Mixed fertilizers, all	766,698	664,427	617,302	560,356
18-46-0	156,871	132,141	156,772	135,238
6-24-24	79,474	71,583	64,757	44,476
15-15-15 2/	10,836	7,740	17,389	18,554
Anhydrous ammonia	136,318	144,174	158,054	149,620
Urea	105,782	98,732	148,660	123,243
Ammonium nitrate	6,916	7,858	9,802	7,265
Ammonium sulfate	17,992	18,222	17,968	16,477
Nitrogen solutions	411,685	426,219	467,088	422,673
Superphosphates	76,530	62,405	68,382	46,417
Potassium chloride	414,003	386,854	439,415	389,608
Organics	1,338	2,115	0	0
Total all fertilizers 3/	1,963,105	1,838,633	1,951,387	1,768,260
Primary Plant Nutrients				
N	367,762	363,695	404,812	373,352
Available P_2O_5	233,702	201,322	205,917	178,719
K_2O	347,600	320,207	346,396	308,329
Total Nutrients	949,064	885,224	957,124	860,400

1/ From Commercial Fertilizers published by Tennessee Valley Authority , Economics and Marketing Staff, National Fertilizer Developement Center. Earlier years published by U.S. Dept. of Agriculture, National Agricultural Statistics Service. 2/ In 1986 and 1987 19-19-19 was used because 15-15-15 was not among the top 15 fertilizers in 1987. 3/ Not sum of above specified mixtures and materials.

FERTILIZER USE ON CORN AND WHEAT ACREAGE HARVESTED FOR GRAIN AND SOYBEANS FOR BEANS, OHIO, 1987 1/

Crop	Fields in Survey	Acres receiving				Rate per acre receiving			Acres fertilized		
		Any fertilizer	N	P_2O_5	K_2O	N	P_2O_5	K_2O	Before Seeding	After Seeding	At or before & after Seeding
	Number	Percent				Pounds			Percent		
Corn	164	99	98	96	94	143	76	109	53	1	47
Soybeans	126	51	21	40	48	13	52	96	97	3	0
Wheat	76	95	93	89	87	71	71	73	15	14	71

1/Based on 1987 Objective Yield Surveys. Published Agricultural Resources Inputs, January 1988.

AVERAGE PRICES PAID BY FARMERS PER TON FOR SELECTED COMMERCIAL FERTILIZERS IN NORTH CENTRAL STATES 1/

Selected fertilizer	April 15, 1986	October 15, 1986	April 15, 1987	October 15, 1987
	Dollars per ton			
5-20-20	146	142	146	154
6-24-24	179	173	176	183
8-32-16	198	190	194	198
10-34-0	226	208	212	211
12-12-12	150	144	142	150
15-15-15	163	160	157	165
18-46-0	226	205	221	233
Ammonium nitrate	156	154	147	142
Urea 44-46%	170	156	160	159
Anhydrous ammonia	224	170	183	177
Nitrogen solution 28%	124	105	104	104
Super phosphate 44-46%	186	176	190	204
Muriate of potash 60%	110	106	114	135

1/Illinois, Indiana, Iowa, Michigan, Minnesota, Missouri, Ohio and Wisconsin.

FERTILIZER NUTRIENT AND PRODUCT TON DELIVERIES BY COUNTY JULY 1986–JUNE 1987

County	N tons	P tons	K tons	Prod tons	County	N tons	P tons	K tons	Prod tons
Adams	14488	6325	13674	64391	Licking	2809	1513	2401	15697
Allen	8140	2555	5163	32596	Logan	3987	2927	4393	24217
Ashland	4626	2245	4120	20363	Lorain	2411	1411	2587	12829
Ashtabula	2998	2278	2848	14844	Lucas	3672	2140	3248	16927
Athens	430	284	446	2119	Madison	6024	3213	5290	30171
Auglaize	7407	4443	8509	40104	Mahoning	2655	1930	2482	14085
Belmont	564	575	819	3730	Marion	8622	3090	5435	38631
Brown	2014	1108	1798	10093	Medina	653	633	1083	4539
Butler	3328	1238	2611	15894	Meigs	385	245	461	2127
Carroll	576	378	444	3045	Mercer	11325	6341	11996	63402
Champaign	11588	3460	6507	41539	Miami	5111	2671	4037	24786
Clark	5202	1997	4042	22385	Monroe	116	131	160	858
Clermont	518	143	277	2073	Montgomery	2310	1541	1951	11920
Clinton	8933	3279	5301	34957	Morgan	10	24	23	116
Columbiana	2196	1856	2385	12938	Morrow	2992	1453	2907	15759
Coshocton	1708	655	1166	6969	Muskingum	1777	976	2397	10581
Crawford	7485	4055	8464	39794	Noble	61	74	80	469
Cuyahoga	1036	313	300	4416	Ottawa	3033	1656	3001	17534
Darke	9123	3970	8343	42481	Paulding	4553	1567	1957	16608
Defiance	2986	1386	2257	13547	Perry	660	362	478	3034
Delaware	3331	1632	3381	18847	Pickaway	11973	4522	8045	54909
Erie	2320	1167	1966	11007	Pike	760	376	496	3531
Fairfield	4747	2246	3571	23260	Portage	1367	816	1255	6652
Fayette	7788	4315	7981	41248	Preble	9153	3811	6989	40825
Franklin	4090	1104	1407	13811	Putnam	9119	4759	7871	44059
Fulton	10904	3430	9312	48670	Richland	5077	2394	3712	22617
Gallia	116	86	96	753	Ross	1778	590	893	7828
Geauga	679	463	444	3435	Sandusky	5942	3194	6676	33323
Greene	6172	2457	3437	23327	Scioto	187	132	167	987
Guernsey	482	367	764	3142	Seneca	8946	5018	9955	49287
Hamilton	1335	112	172	2588	Shelby	4599	2904	5036	27804
Hancock	7607	4553	7686	39313	Stark	3485	2358	2812	19423
Hardin	6404	2463	4334	24276	Summit	413	339	389	2945
Harrison	344	190	232	1842	Trumbull	1682	1294	1784	8632
Henry	10354	4574	5928	42679	Tuscarawas	4127	2167	3710	20554
Highland	7834	5826	9464	47303	Union	11280	2955	5230	38583
Hocking	111	75	123	647	Van Wert	8403	3989	5607	36141
Holmes	611	647	739	3928	Vinton	17	26	27	163
Huron	10985	4513	5267	41409	Warren	3689	1273	2994	14325
Jackson	1228	730	951	6278	Washington	1693	1109	1580	8155
Jefferson	538	558	592	3245	Wayne	7396	4957	7081	40646
Knox	3174	2018	3091	18427	Williams	7738	2966	6138	31747
Lake	193	112	155	1084	Wood	9379	4723	9436	47540
Lawrence	52	66	155	541	Wyandot	5254	1900	3367	21736

COMMERCIAL FLORICULTURE: Numbers of growers with gross sales of $10,000 or greater, area in production, quantities produced, quantities sold, percent sold wholesale, average price per unit and value of total sales at wholesale, Ohio, 1986 and 1987.

CROP	AVERAGE GROSS AREA PRODUCTION (1000 SQ FT)		INTENDED PRODUCTION (1000 SQ FT)	UNIT	QUANTITY SOLD TOTAL UNITS (1000 UNITS)		PERCENT OF SALES SOLD WHOLESALE		WHOLESALE PRICE (DOLLARS)		WHOLESALE VALUE OF TOTAL SALES (1000 DOLLARS)	
	1986	1987	1988	UNIT	1986	1987	1986	1987	1986	1987	1986	1987
CUT FLOWERS												
CARNATIONS												
STANDARD 1/	24	-		BLOOMS	702	-	86	-	.200	-	140	-
MINIATURE 1/	-	-		BUNCHES	-	-	-	-	-	-	-	-
ROSES												
HYBRID TEA	813	810	790	BLOOMS	11,527	12,216	100	100	.441	.491	5,083	5,998
SWEETHEART	126	162	162	BUNCHES	3,024	4,329	100	100	.310	.318	937	1,377
CHRYSANTHEMUMS												
STANDARD	326	232	229	BLOOMS	1,122	828	63	52	.524	.636	588	527
POMPON	402	348	362	BUNCHES	488	330	50	59	2.03	2.49	991	822
GLADIOLI 1/	1	-	-	SPIKES	12	-	17	-	.225	-	3	-
OTHER CUT FLOWERS	457	486	545				84	79			1,210	1,242
POTTED PLANTS												
CHRYSANTHEMUMS	1,122	1,082	2,190	POTS	1,446	2,119	94	96	2.95	2.36	4,266	5,010
AZALEAS	244	209	239	POTS	282	226	93	93	4.19	1.68	1,182	1,225
LILLIES												
EASTER	473	537	720	POTS	645	663	92	92	3.47	3.50	2,238	2,319
OTHER	24	37	31	POTS	24	35	81	77	2.79	4.40	67	154
POINSETTIAS	4,188	4,247	3,367	POTS	2,773	3,174	85	85	3.55	3.37	9,844	10,689
OTHER FLOWERING	1,227	1,494	2,312	POTS	1,622	2,285	96	98	2.32	2.29	3,763	5,222
HANGING BASKETS 2/												
FLOWERING			1,468	BASKETS	1,128	1,379	89	82	5.17	5.35	5,832	7,378
FOLIAGE			2,638	BASKETS	1,602	2,486	96	96	3.32	3.78	5,319	9,397
POTTED FOLIAGE	1,120	1,052	1,047	POTS			91	87			8,308	5,760
BEDDING/FLATS												
GERANIUMS	644	847	446	FLATS	340	436	87	80	8.29	7.65	2,819	3,335
FLOWERING/FOLIAGE	8,465	10,223	5,350	FLATS	4,433	5,083	79	81	5.08	4.98	22,520	25,313
VEGETABLE	1,964	1,712	835	FLATS	1,034	841	77	71	5.03	4.83	5,201	4,062
BEDDING PLANTS												
HARDY MUMS	1,483	1,474		POTS	2,092	2,459	51	48	1.40	1.49	2,929	3,668
GERANIUMS												
CUTTINGS	2,022	2,336	6,555	POTS	5,432	6,432	70	73	1.04	1.06	5,649	6,841
SEEDED	776	1,058	3,378	POTS	2,730	3,291	73	75	.850	.860	2,321	2,821
OTHER POTTED	724	858	2,736	POTS	2,373	2,799	26	72	.990	.994	2,349	2,783
VEGETABLE POTS	83	255	730	POTS	270	695	46	66	.650	1.532	176	1,065
TOTAL	19,681	21,266									95,552	112,582

	POTTED PLANTS SOLD BY SIZE OF POT (1,000 POTS) OHIO 1987		
	-5"	5+"	TOTAL
AFRICAN VIOLETS	5,112	46	5,158
CHRYSANTHEMUMS	976	1,143	2,119
AZALEAS	12	214	226
EASTER LILLIES	6	657	663
OTHER LILLIES	0	35	35
POINSETTIAS	718	2,456	3,174
OTHER FLOWERING	888	1,417	2,285

	COUNTY RANKING				
	EQUIV WHLSL VALUE	PRODUCTION AREA COVERED	NO. OF FIRMS REPORTING	WHOLESALE VALUE FLOWERING FOLIAR BEDDING	WHOLESALE VALUE VEGETABLE TYPE BEDDING
AFRICAN VIOLETS	LORAIN	LORAIN	HAMILTON	LUCAS	LUCAS
CHRYSANTHEMUMS	LUCAS	LUCAS	CUYAHOGA	LORAIN	FULTON
AZALEAS	CUYAHOGA	CUYAHOGA	LUCAS	CUYAHOGA	CUYAHOGA
EASTER LILLIES	FRANKLIN	HAMILTON	FRANKLIN	FULTON	HAMILTON
OTHER LILLIES	HAMILTON	FRANKLIN	LORAIN	FRANKLIN	LORAIN
POINSETTIAS	CLARK	STARK	LAKE	HAMILTON	FRANKLIN
OTHER FLOWERING	SUMMIT	SUMMIT	MONTGOMERY	SUMMIT	PORTAGE

1/ Data not published to avoid disclosure of individual operations. 2/ Intended production is in 1,000 baskets.

1987 LIVESTOCK DAIRY AND POULTRY SUMMARY

Cash receipts from hog, cattle and sheep marketings during 1987 totaled $781,064,000, an increase of 8 percent from 1986. Increases of cash receipts by species ranged from 8 percent for both cattle and hogs to 21 percent for sheep. Livestock cash receipts amounted to 47 percent of income from beef animals; hogs, 51 percent; and sheep, 2 percent.

Cattle and calf production totaled 591.6 million pounds during 1987, down 3 percent from 1986. Marketings of cattle and calves for 1987, at 624.3 million pounds were down 9 percent from the previous year. Prices in 1987 offset the lower marketings with cattle at $58.60 per hundredweight (cwt.) up 17 percent and calves, at $73.10 per cwt. up 30 percent from a year earlier.

The number of cattle and calves in Ohio on January 1, 1988 was estimated at 1,820,000 head, up 1 percent from a year earlier. The value per head for 1988 at $550.00 reached the third highest on record; surpassed by the peak established January 1, 1980 at $555.00. The January 1, 1988 total value of all cattle again broke through the $1 billion mark. This also occurred in 1980 and 1981. Beef cows with an inventory of 412,000 head on January 1, 1988 increased 6 percent from a year earlier. This is one of the largest counts on record except for the expansion in the mid 1970's. At that time half a million, or more, beef cattle were on hand. The dairy herd buyout program held down number of milk cows to the lowest on record, 368,000 head, a decline of 1 percent form a year earlier. Farms with cattle numbered 43,000, down 2 percent from a year earlier.

Ohio hog producers had 2,100,000 hogs on hand June 1, 1987, 26 percent more than a year earlier. The number of market hogs, at 1,820,000 was 14 percent more than a year earlier and breeding stock, at 280,000 was 12 percent more than a year earlier. The pig crop during the March 1987 through May 1987 quarter totaled 920,000 pigs, 16 percent more than the same quarter a year earlier. The number of sows farrowed (115,000 sows) increased 15 percent from the previous year. This is 15,000 more than the intentions survey showed March 1, 1987. Pigs saved per litter numbered 8.0 compared with 7.9 pigs per litter during the March-May quarter a year earlier.

Ohio hog producers had 2,150,000 hogs on hand December 1, 1987, 8 percent more than a year earlier. The number of market hogs, at 1,860,000 was 8 percent more than a year earlier and breeding stock, at 290,000 was 4 percent more than a year earlier. The pig crop during the September 1987 through November 1987 quarter totaled 836,000 pigs, 6 percent more than the same quarter a year earlier. The number of sows farrowed (110,000 sows) increased 10 percent from the previous year. This is 10,000 fewer than the intentions survey showed September 1, 1987. Pigs saved per litter numbered 7.6 compared with 7.85 pigs per litter during the September-November quarter a year earlier.

Sheep and lamb production in 1987, at 17.1 million pounds, declined 15 percent from the previous year. Marketings during 1987, at 21.6 million pounds, advanced 28 percent from a year earlier. Prices were split with sheep averaging $33.30 per cwt. during 1987, down 11 percent from a year earlier, and lambs averaging $77.10 per cwt., up 13 percent from the previous year.

The number of sheep in Ohio on January 1, 1988 totaled 270,000 head, a 10 percent decline from a year earlier. The Ohio sheep population has been in a rather steady decline since the 1940's although inventory numbers inreased for the Janaury 1, 1986 and 1987 estimates. The value of sheep per head on January, 1988 was $82.50. This was $9.00 more than a year earlier and almost double the value of 10 years earlier. The inventory of all classifications of sheep and lambs were down except wethers and rams one year old and older were unchanged at 8,000 head and sheep on feed at 60,000 increased 5,000 head from a year earlier. The lamb crop for the period October 1, 1986 to September 30, 1987 was 205,000 head, a decline of 11 percent (25,000 head) from the pervious period. The number of farms with sheep was 7,100, down 400 from a year earlier.

Ohio milk production during 1987 totaled 4.81 billions pounds, down almost 3 percent from the previous year. The 1987 output per cow was 13,000 pounds. This was a new record high, breaking the previous record set in 1986 by 112 pounds. The value of milk produced during 1987 was $613.5 million; a decline of 1 percent from a year earlier. Milk price averaged $12.76 per hundredweight for 1987. This was 20 cents more than a year earlier.

Ohio egg production advanced to still another record high in 1987 with 4,351 million eggs, up 12 percent from 1987 and the tenth consecutive annual increase. Ohio held fifth position among the states in egg production; unchanged from a year earlier. Ohio producers received an average of 40 cents per dozen for eggs during 1987, a 9 cent decline from the previous year. The value of egg production in Ohio during 1987 was $145 million, down 8 percent from 1986 in spite of the higher output.

The number of turkeys raised during the 1987 production year was 3.4 million, up almost 10 percent form a year earlier. The number of pounds produced, 88.4 million, was up 13 percent, indicating heavier birds were marketed in 1987 compared with 1986. Producers received an average of 32 cents per pound in 1987, down from the 47 cent average in 1986. Value of production during 1987, at $28.3 million, declined 23 percent from a year earlier.

Broiler production totaled 47.3 million pounds in 1987, up 11 percent from the 42.6 million pounds in 1986. Producers received a liveweight equivalent price of 23 cents per pound, down from the year earlier price of 34 cents. This brought value of broiler production during 1987 down to $10,879,000 compared with $14,474,000 for 1986; a decline of 25 percent.

The number of bee colonies in Ohio, at 55,000, dropped 4,000 from a year earlier and yield of honey per colony almost doubled. This boosted 1987 honey production (2,750,000 pounds) by 79 percent from 1986 to 1987. Stocks of honey on hand December 15 at 853,000 pounds also increased 92 percent from a year earlier. The price per pound held up well considering the increased production and stocks. This year the price was 66 cents per pound, 2 cents less than last year. Value of production, at $1,815,000, increased 74 percent from a year earlier.

CATTLE AND CALVES: NUMBER BY CLASS AND CALF CROP, OHIO AND UNITED STATES, JANUARY 1, 1987-88

Class	OHIO 1987	OHIO 1988	OHIO 1988 as % 1987	UNITED STATES 1987	UNITED STATES 1988	UNITED STATES 1988 as % 1987
	1,000 head		Percent	1,000 head		Percent
All cattle and calves	1,800	1,820	101	102,000	98,994	97
Cows & heifers that have calved	760	780	103	44,282	43,266	98
Beef cows	390	412	106	33,779	32,958	98
Milk cows	370	368	99	10,502	10,307	98
Heifers 500 pounds and over	320	330	103	17,056	17,078	100
For beef cow replacement	65	65	100	5,164	5,155	100
For milk cow replacement	160	165	103	4,331	4,111	95
Other heifers	95	100	105	7,561	7,812	103
Steers 500 pounds and over	270	250	93	15,304	15,592	102
Bulls 500 pounds and over	40	40	100	2,204	2,163	98
Calves under 500 pounds	410	420	102	23,154	20,895	90
Calf crop 1/	700	710	101	41,141	40,026	97
Cattle on feed	200	200	100	10,963	11,527	105
Number of cattle operations 1/ 2/	44,000	43,000	98	1,447,720	1,410,070	97
Cattle & Calves value/head ($) 2/	450	550	122	407	523	129
Total Value ($)	810,000	1,001,000	124	41,482,765	51,807,580	125

1/ During 1986 and 1987. 2/ Whole numbers; not in thousands.

CATTLE AND CALVES: INVENTORY AND DISPOSITION, OHIO, 1985-88

Year	On hand January 1	Calves born	Inship-ments	Marketings		On farm slaughter	Deaths	
				Cattle	Calves		Cattle	Calves
	Thousand head							
1985	1,835	710	140	610	140	5	30	60
1986	1,840	700	115	607	148	5	35	60
1987	1,800	710	120	555	140	5	45	65
1988	1,820							

CATTLE AND CALVES: PRODUCTION AND INCOME, OHIO, 1985-87

Year	Production	Marketings	Average price per 100 lbs.		Cash receipts	Value of home consumption	Gross income
			Cattle	Calves			
	Thousand pounds		Dollars		Thousand dollars		
1985	616,890	676,350	50.40	55.20	342,421	16,613	359,034
1986	611,370	683,850	50.00	56.30	344,628	16,508	361,136
1987	591,640	624,250	58.60	73.10	371,684	19,476	391,160

MILK: COWS ON FARMS, MILK PER COW, MILK PRODUCTION, MILKFAT BY MONTHS, OHIO, 1986 AND 1987

Month	Cows on farm		Milk per cow		Milk production		Milkfat-all milk	
	1986	1987	1986	1987	1986	1987	1986	1987
	Thousand head		Pounds		Million pounds		Percent	
January	390	371	1,050	1,055	410	391	3.87	3.85
February	388	368	990	1,010	384	372	3.83	3.82
March	388	370	1,085	1,110	421	411	3.79	3.78
April	387	373	1,095	1,120	424	418	3.69	3.71
May	387	373	1,165	1,180	451	440	3.60	3.59
June	384	372	1,120	1,120	430	417	3.55	3.51
July	382	371	1,110	1,110	424	412	3.51	3.49
August	382	368	1,085	1,095	414	403	3.50	3.49
September	380	370	1,050	1,045	399	387	3.61	3.62
October	378	369	1,060	1,060	401	391	3.70	3.77
November	374	369	1,030	1,030	385	380	3.82	3.80
December	371	368	1,060	1,055	393	388	3.87	3.83
Annual	383	370	2,888	13,000	4,936	4,810	3.70	3.68

MILK PRODUCTION AND DISPOSITION, OHIO, 1985-87

Year	Milk used where produced			Milk marketed by producers				Total milk produced
	Fed to calves	Used for milk, cream and butter	Total	Sold to plants & dealers: As whole milk	Sold to plants & dealers: As separated cream	Sold 1/ directly to consumers	Total marketed	
	Million pounds							
1985	35	20	55	4,800	-	15	4,815	4,870
1986	40	20	60	4,860	-	16	4,876	4,936
1987	25	20	45	4,750	-	15	4,765	4,810

1/Includes institutional herds

MILK: QUANTITY MARKETED, PRICE, CASH RECEIPTS AND VALUE, OHIO, 1986 AND 1987

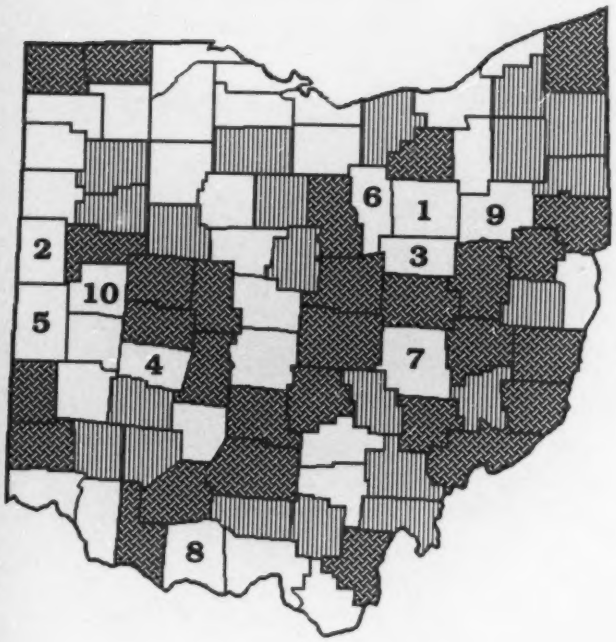
Year	Combined marketings milk & cream			Used for milk, cream & butter where produced		Gross producer income	Value of milk produced
	Milk utilized	Price per 100 lbs.	Cash receipts from marketings	Milk utilized	Value		
	Mil. lbs.	Dollars	1,000 dol.	Mil. lbs.	1,000 dol.	1,000 dol.	1,000 dol.
1986	4,876	12.56	612,263	20	2,511	614,774	619,797
1987	4,765	12.76	607,785	20	2,551	610,336	613,525

MILK COWS: PERCENT OF OPERATIONS AND INVENTORY BY SIZE GROUPS, OHIO, 1986 AND 1987

Item	Size of operation							
	1-29		30-49		50-99		100+	
	1986	1987	1986	1987	1986	1987	1986	1987
	Percent							
Operations	49.0		18.9		26.4		5.7	
Inventory	16.8		17.8		45.9		19.5	

ALL CATTLE

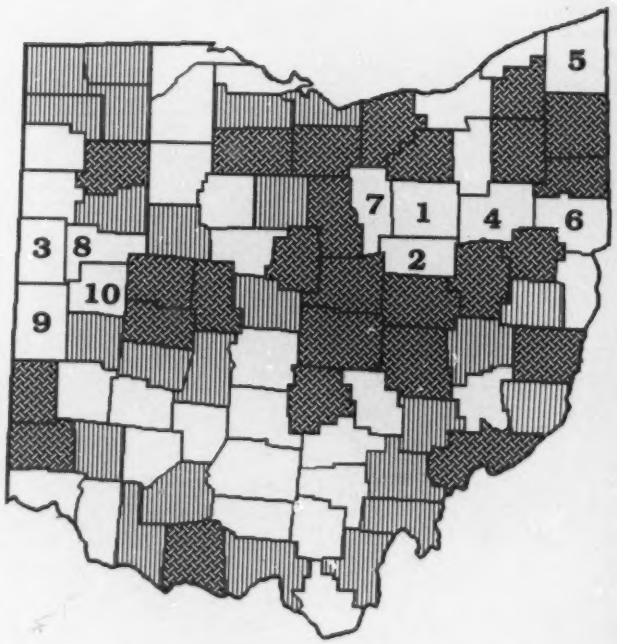
THOUSAND HEAD
JAN. 1, 1988



Symbol	Thousand Head Top Ten Counties
1—10	32.0 and Over
	21.0 — 31.9
	13.0 — 20.9
	Under 13.0

MILK COWS

THOUSAND HEAD
JAN. 1, 1988



Symbol	Thousand Head Top Ten Counties
1—10	9.4 and Over
	3.0 — 9.3
	1.5 — 2.9
	Under 1.5

OHIO COUNTY ESTIMATES
ALL CATTLE AND MILK COWS: ON FARMS, JANUARY 1, 1987-1988

ALL MILK SOLD TO PLANTS AND DEALERS, OHIO, 1986-1987

COUNTY & DISTRICT	ALL CATTLE AND CALVES JANUARY 1 1987	ALL CATTLE AND CALVES JANUARY 1, 1988	MILK COWS AND HEIFERS THAT HAVE CALVED JANUARY 1 1987	MILK COWS AND HEIFERS THAT HAVE CALVED JANUARY 1, 1988	MILK SOLD 1986	MILK SOLD 1987
	HEAD				(MIL. LBS.)	
Allen	13,000	13,000	1,500	1,600	20.0	19.0
Defiance	12,000	11,500	2,000	2,200	24.0	23.0
Fulton	28,000	28,000	2,700	2,500	38.0	34.0
Hancock	6,500	6,500	1,200	1,100	12.0	12.0
Henry	9,000	9,500	1,700	1,900	20.0	19.0
Lucas	1,500	1,500	*	*	*	*
Paulding	6,000	6,000	*	*	*	*
Putnam	14,000	13,000	3,600	3,500	50.0	48.0
Van Wert	5,000	5,000	1,500	1,300	19.0	16.0
Williams	26,000	24,000	2,700	2,800	43.0	42.0
Wood	9,000	9,000	*	*	*	*
DISTRICT 1	130,000	127,000	19,000	18,500	249.0	233.0
Ashland	43,000	42,000	12,500	12,100	145.0	150.0
Crawford	16,000	17,000	2,500	2,100	32.0	31.0
Erie	10,000	10,000	1,900	1,700	15.0	14.0
Huron	12,000	12,000	4,400	4,300	68.0	70.0
Lorain	15,500	15,000	6,300	5,900	84.0	82.0
Ottawa	2,000	2,000	*	*	*	*
Richland	21,000	22,000	5,600	5,900	71.0	72.0
Sandusky	12,000	12,000	2,000	2,000	21.0	19.0
Seneca	14,000	15,000	3,300	3,000	39.0	40.0
Wyandot	7,500	8,000	*	*	*	*
DISTRICT 2	153,000	155,000	40,500	39,000	496.0	499.0
Ashtabula	27,000	27,000	13,500	13,500	160.0	158.0
Columbiana	27,000	27,000	13,000	13,100	161.0	160.0
Cuyahoga	*	*	*	*	*	*
Geauga	15,000	16,000	5,200	5,100	66.0	63.0
Lake	*	*	*	*	*	*
Mahoning	15,000	15,000	6,500	6,500	74.0	73.0
Medina	23,000	24,000	8,000	8,000	111.0	108.0
Portage	15,000	15,000	4,600	4,900	62.0	60.0
Stark	32,000	32,000	13,800	14,000	189.0	191.0
Summit	2,000	2,000	*	*	*	*
Trumbull	19,000	20,000	6,900	7,300	95.0	97.0
Wayne	105,000	105,000	36,900	38,000	519.0	535.0
DISTRICT 3	282,000	285,000	109,000	111,000	1,444.0	1,451.0
Auglaize	30,000	30,000	10,000	10,400	141.0	140.0
Champaign	29,000	29,000	6,000	5,700	71.0	66.0
Clark	48,000	48,000	2,200	1,800	17.0	14.0
Darke	46,000	46,000	10,200	10,300	144.0	142.0
Hardin	19,000	19,000	3,100	2,800	35.0	32.0
Logan	27,000	27,000	6,500	6,400	106.0	99.0
Mercer	57,000	57,000	17,300	18,000	283.0	235.0
Miami	19,000	19,000	1,900	2,200	30.0	32.0
Shelby	32,000	32,000	9,300	9,400	135.0	132.0
DISTRICT 4	307,000	307,000	66,500	67,000	962.0	892.0
Delaware	12,000	12,500	2,300	2,100	29.0	29.0
Fairfield	27,000	27,000	3,500	3,300	47.0	45.0
Fayette	12,000	11,000	*	*	*	*
Franklin	7,000	7,500	*	*	*	*
Knox	30,000	30,000	9,000	8,500	107.0	107.0
Licking	31,000	31,000	5,300	5,100	68.0	71.0
Madison	23,000	23,000	2,500	2,400	26.0	24.0
Marion	10,000	11,000	1,300	1,400	17.0	15.0
Morrow	17,000	16,000	3,300	3,000	33.0	33.0
Pickaway	28,000	28,000	1,400	1,200	17.0	15.0
Ross	29,000	29,000	1,500	1,300	16.0	16.0
Union	25,000	26,000	4,200	3,900	44.0	43.0
DISTRICT 5	251,000	252,000	36,000	34,000	421.0	415.0

OHIO COUNTY ESTIMATES
ALL CATTLE AND MILK COWS: ON FARMS, JANUARY 1, 1987-1988

ALL MILK SOLD TO PLANTS AND DEALERS, OHIO, 1986-1987

COUNTY & DISTRICT	ALL CATTLE AND CALVES JANUARY 1, 1987	ALL CATTLE AND CALVES JANUARY 1, 1988	MILK COWS AND HEIFERS THAT HAVE CALVED JANUARY 1 1987	MILK COWS AND HEIFERS THAT HAVE CALVED JANUARY 1, 1988	MILK SOLD 1986	MILK SOLD 1987
			HEAD		(MIL. LBS.)	
Belmont	26,000	28,000	3,900	3,500	39.0	40.0
Carroll	28,000	28,000	6,600	6,500	71.0	69.0
Coshocton	23,000	23,000	5,100	5,000	66.0	64.0
Harrison	17,000	17,000	2,600	2,500	35.0	36.0
Holmes	50,000	52,000	22,300	24,000	287.0	281.0
Jefferson	12,000	11,000	1,500	1,400	25.0	24.0
Tuscarawas	30,000	31,000	9,000	9,100	148.0	153.0
DISTRICT 6	186,000	190,000	51,000	52,000	671.0	667.0
Butler	25,000	26,000	3,800	3,300	47.0	44.0
Clermont	9,000	9,000	*	*	*	*
Clinton	15,000	15,000	1,500	1,300	18.0	17.0
Greene	19,000	20,000	*	*	*	*
Hamilton	5,000	5,000	*	*	*	*
Montgomery	10,000	10,000	1,600	1,400	22.0	21.0
Preble	25,000	27,000	3,200	3,100	45.0	46.0
Warren	17,000	18,000	1,900	1,500	20.0	19.0
DISTRICT 7	125,000	130,000	14,500	13,000	187.0	179.0
Adams	33,000	33,000	4,600	4,600	54.0	53.0
Brown	25,000	26,000	2,500	2,600	28.0	26.0
Gallia	21,000	22,000	2,200	2,200	30.0	28.0
Highland	25,000	25,000	2,800	2,700	36.0	31.0
Jackson	12,000	13,000	*	*	*	*
Lawrence	10,000	10,000	*	*	*	*
Pike	12,000	13,000	*	*	*	*
Scioto	12,000	12,000	1,700	1,700	24.0	25.0
DISTRICT 8	150,000	154,000	16,000	16,000	195.0	186.0
Athens	15,000	16,000	1,500	1,500	23.0	22.0
Guernsey	25,000	26,000	2,000	2,000	28.0	26.0
Hocking	7,000	6,500	*	*	*	*
Meigs	14,000	14,000	2,000	2,000	20.0	19.0
Monroe	20,000	21,000	2,800	2,700	31.0	30.0
Morgan	25,000	25,000	1,500	1,500	20.0	21.0
Muskingum	38,000	40,000	2,900	3,000	44.0	42.0
Noble	18,000	17,000	*	*	*	*
Perry	16,000	15,000	*	*	*	*
Vinton	8,000	8,500	*	*	*	*
Washington	30,000	31,000	3,000	3,000	45.0	45.0
DISTRICT 9	216,000	220,000	17,500	17,500	235.0	228.0
STATE	1,800,000	1,820,000	370,000	368,000	4,860.0	4,750.0

* Counties with less than 1,000 head not published. Counties with more than 1,000 head are also unpublished, if necessary, to preserve the confidentiality of counties with less than 1,000 head

MANUFACTURED DAIRY PRODUCTS: PRODUCTION BY MONTHS, OHIO, 1986 AND 1987

Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Total
American cheese - thousand pounds													
1986	2,825	1,744	2,474	2,809	3,867	3,479	2,385	2,309	2,161	2,289	2,181	2,284	30,807
1987	1,870	1,439	1,755	1,852	2,677	1,977	1,643	1,408	1,108	1,707	1,495	1,676	20,607
Swiss cheese - thousand pounds													
1986	5,422	5,135	4,705	4,913	5,666	5,271	5,218	5,196	4,771	4,208	3,493	3,922	57,920
1987	4,207	4,266	4,964	5,080	5,635	5,276	4,983	4,626	4,482	4,727	4,292	5,015	57,553
All cheese - thousand pounds													
1986	9,707	8,411	8,834	9,182	11,177	10,320	9,093	9,011	8,557	8,183	7,179	7,833	107,487
1987	7,631	7,322	8,427	8,531	9,899	8,896	8,075	7,540	7,350	8,161	7,510	8,611	97,953
Butter - thousand pounds													
1986	2,848	2,677	2,391	2,560	2,299	1,262	925	692	966	1,195	1,100	1,375	20,290
1987	1,819	1,603	1,632	1,042	1,044	664	630	661	852	1,302	1,153	1,137	13,539
Cottage cheese curd - thousand pounds													
1986	2,041	2,039	1,948	2,114	2,258	1,667	2,108	2,007	1,950	2,022	3,083	1,844	25,081
1987	1,858	2,007	2,268	2,224	2,155	2,196	2,097	1,988	2,239	2,068	1,998	1,684	24,782
Cottage cheese, lowfat - thousand pounds													
1986	1,189	1,181	1,136	1,472	1,247	838	1,292	1,274	1,177	1,352	1,009	1,051	14,218
1987	1,232	1,327	1,374	1,427	1,325	1,440	1,298	1,280	2,149	1,341	1,327	905	16,425
Cottage cheese, creamed - thousand pounds													
1986	3,368	3,384	3,447	3,584	4,128	3,312	3,730	3,668	3,661	4,308	3,741	3,396	43,727
1987	3,224	3,486	3,963	3,853	3,648	3,728	3,780	3,416	3,833	3,248	3,285	3,015	42,479
Ice cream mix - thousand gallons													
1986	1,638	1,618	2,030	2,121	2,297	2,604	2,652	2,449	2,217	1,807	1,575	1,876	24,884
1987	1,585	1,734	2,246	2,033	2,232	2,772	2,535	2,364	2,152	1,637	1,451	1,644	24,385
Milk sherbet mix - thousand gallons													
1986	115	137	185	238	255	264	331	270	210	182	162	172	2,521
1987	106	103	144	182	174	285	289	179	168	121	101	161	2,013
Ice Cream - thousand gallons													
1986	3,020	2,920	3,721	3,774	3,960	4,595	4,819	4,315	4,190	3,488	3,135	3,507	45,444
1987	2,861	3,236	3,805	3,770	3,749	4,980	4,481	4,240	3,729	3,248	2,602	3,103	43,804
Ice milk - thousand gallons													
1986	480	883	1,110	1,449	1,639	1,803	1,953	1,611	1,236	921	462	600	14,147
1987	505	555	854	963	1,153	1,403	1,332	1,183	879	562	483	439	10,311
Milk sherbet - thousand gallons													
1986	179	228	242	350	389	355	327	303	228	268	209	260	3,338
1987	175	164	219	255	281	364	353	329	225	178	157	255	2,955
Water ices - thousand gallons													
1986	48	74	173	219	264	320	266	137	47	76	15	32	1,671
1987	135	210	101	84	227	257	116	364	374	118	153	56	2,195

ALL HOGS AND PIGS: QUARTERLY INVENTORY, BY CLASSES, OHIO AND U.S., 1986 AND 1987

Year and quarter	Total hogs	Breeding hogs	Market hogs and pigs				
			Under 60 lbs.	60-119 lbs.	120-179 lbs.	180 lbs. and over	Total
	Thousand head						
OHIO							
March 1, 1986	1,860	235	600	360	365	300	1,625
June 1, 1986	1,850	250	700	400	280	220	1,600
September 1, 1986	1,900	260	675	410	315	240	1,915
December 1, 1986	2,000	280	660	440	330	290	1,720
March 1, 1987	1,880	260	605	375	370	270	1,620
June 1, 1987	2,100	280	820	415	330	255	1,820
September 1, 1987	2,200	285	775	450	400	290	1,915
December 1, 1987	2,150	290	680	490	375	315	1,860
UNITED STATES							
June 1, 1986	48,825	6,420	17,645	10,565	7,990	6,205	42,405
December 1, 1986	50,920	6,671	16,756	11,228	9,106	7,159	44,249
June 1, 1987	52,080	7,025	19,535	11,050	8,160	6,310	45,055
December 1987	53,795	7,021	17,230	11,902	9,625	8,017	46,774

HOGS: INVENTORY NUMBER, PIG CROP, AND DISPOSITION, OHIO, 1985-88

Year	December 1 inventory 1/	Pig crop		Inshipments	Marketings 2/	Farm 3/ slaughter	Deaths
		Dec.-May	Jun.-Nov.				
	Thousand head						
1985	1,970	1,493	1,693	162.0	3,131.0	12	195
1986	1,980	1,501	1,594	211.4	3,094.4	7	185
1987	2,000	1,640	1,772	197.3	3,251.3	8	200
1988	2,150						

1/December 1 previous year. 2/Excludes interfarm sales. 3/Excludes custom slaughter for farmers at commercial establishments.

HOGS: PRODUCTION AND INCOME, OHIO, 1985-87

Year	Production	Marketings	Price per cwt.	Cash receipts	Value of home consumption	Gross income
	Thousand pounds		Dollars	Thousand dollars		
1985	744,650	742,253	44.40	327,711	1,619	331,532
1986	739,723	740,571	49.50	366,719	1,560	368,279
1987	789,769	775,712	51.00	395,847	2,698	398,545

SOW FARROWINGS, PIGS PER LITTER, AND PIG CROP, OHIO, 1986 AND 1987

Year	December-May pig crop 1/			June-November pig crop		
	Sows farrowing	Pigs/litter	Pig crop	Sows farrowing	Pigs/litter	Pig crop
	Thou. head	Head	Thou. head	Thou. head	Head	Thou. head
1986	190	7.90	1,501	205	7.78	1,594
1987	215	7.63	1,640	230	7.70	1,772

1/December previous year.

HOGS AND PIGS: PERCENT OF OPERATIONS AND INVENTORY BY SIZE GROUP, OHIO, 1986 AND 1987

Item	Size of operation					
	1-99		100-499		500+	
	1986	1987	1986	1987	1986	1987
	Percent					
Operations	70.7	69.7	23.6	23.4	5.7	6.9
Inventory	13.0	13.8	41.6	36.2	45.4	50.0

SHEEP AND LAMBS, JANUARY 1, OHIO, 1986-88

Year	Total	Sheep on feed	Stock sheep and lambs	Lambs		One year and older		New crop lambs 1/
				Ewes	Wethers and rams	Ewes	Wethers and rams	
	Thousand head							
1986	275	50	225	28	5	185	7	12
1987	300	55	245	30	7	200	8	13
1988	270	60	210	27	5	170	8	10

1/Not included in total inventory.

SHEEP: INVENTORY AND DISPOSITION, OHIO, 1986-88

Year	Inventory	Lamb crop	Inship-ments	Marketings		Farm slaughter	Deaths	
	January 1			Sheep	Lambs		Sheep	Lambs
	Thousand head							
1986	275	230	3	6	161	4	12	25
1987	300	205	6	58	145	4	12	22
1988	270							

SHEEP: PRODUCTION AND INCOME, OHIO, 1985-87

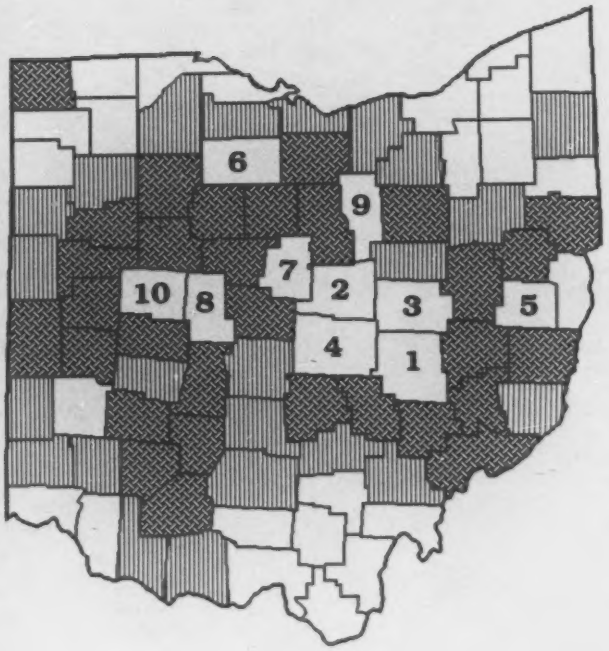
Year	Production	Marketings	Average price per cwt.		Cash receipts	Value of home consumption	Gross income
			Sheep	Lambs			
	Thousand pounds		Dollars		Thousand dollars		
1985	17,205	16,255	34.90	66.90	10,203	416	10,619
1986	20,015	16,820	37.30	68.00	11,217	249	11,466
1987	17,060	21,568	33.30	77.10	13,533	235	13,768

WOOL: PRODUCTION AND VALUE, OHIO, 1985-87

Year	Sheep shorn	Weight per fleece	Production	Price per pound	Value
	Thousand head	Pounds	Thousand pounds	Cents	Thousand dollars
1985	260	7.4	1,921	45	864
1986	270	7.2	1,956	46	900
1987	273	7.0	1,910	54	1,031

STOCK SHEEP

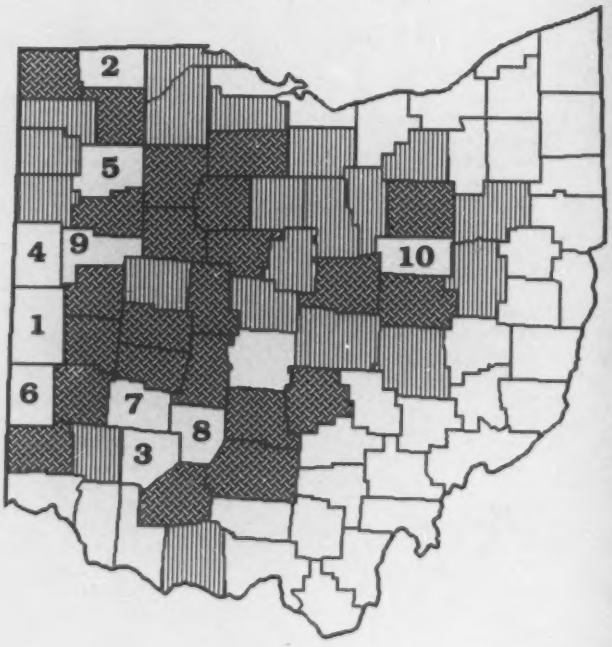
THOUSAND HEAD
JAN. 1, 1988



Symbol	Thousand Head Top Ten Counties
1—10	4.7 and Over
	2.0 — 4.6
	1.0 — 1.9
	Under 1.0

HOGS AND PIGS

THOUSAND HEAD
DEC. 1, 1987



Symbol	Thousand Head Top Ten Counties
1—10	52.0 and Over
	26.0 — 51.9
	10.0 — 25.9
	Under 10.0

OHIO COUNTY ESTIMATES
HOGS AND PIGS: NUMBER ON FARMS, DECEMBER 1, 1986-1987
STOCK SHEEP: NUMBER ON FARMS, OHIO, JANUARY 1, 1987-1988

COUNTY & DISTRICT	HOGS AND PIGS DECEMBER 1, 1986	DECEMBER 1, 1987	STOCK SHEEP JANUARY 1 1987	JANUARY 1, 1988
		HEAD		
Allen	38,000	40,000	1,800	2,100
Defiance	22,000	23,000	*	*
Fulton	90,000	95,000	*	*
Hancock	29,000	31,000	5,500	4,000
Henry	34,000	35,000	1,200	*
Lucas	12,000	13,000	*	*
Paulding	9,000	10,000	*	*
Putnam	75,000	77,000	*	*
Van Wert	18,000	20,000	1,400	1,700
Williams	35,000	36,000	2,100	2,200
Wood	18,000	20,000	1,600	1,200
DISTRICT 1	380,000	400,000	17,500	15,000
Ashland	22,000	24,000	4,700	5,300
Crawford	22,000	24,000	4,100	3,400
Erie	4,000	4,500	*	*
Huron	15,000	17,000	4,000	2,900
Lorain	5,000	5,500	1,800	1,200
Ottawa	6,000	7,000	*	*
Richland	22,000	24,000	3,000	2,500
Sandusky	17,000	20,000	1,800	*
Seneca	30,000	32,000	6,500	6,100
Wyandot	27,000	29,000	4,500	3,100
DISTRICT 2	170,000	187,000	32,000	26,900
Ashtabula	6,000	7,000	*	*
Columbiana	8,000	9,000	2,600	2,400
Cuyahoga	*	*	*	*
Geauga	3,000	3,500	*	*
Lake	*	*	*	*
Mahoning	5,000	6,000	*	*
Medina	10,500	13,000	2,000	1,800
Portage	4,000	4,500	*	*
Stark	11,000	12,000	2,000	1,600
Summit	*	*	*	*
Trumbull	2,500	3,000	*	*
Wayne	49,000	51,000	4,600	3,800
DISTRICT 3	100,000	110,000	16,000	14,000
Auglaize	45,000	52,000	3,000	2,800
Champaign	24,000	27,000	4,000	3,000
Clark	37,000	38,000	1,800	1,100
Darke	111,000	124,000	3,600	2,800
Hardin	34,000	40,000	5,500	4,200
Logan	24,000	25,000	6,000	4,700
Mercer	88,000	93,000	2,400	1,600
Miami	38,000	40,000	3,000	2,600
Shelby	49,000	51,000	2,700	2,200
DISTRICT 4	450,000	490,000	32,000	25,000
Delaware	22,000	23,000	3,100	2,500
Fairfield	40,000	42,000	4,500	3,500
Fayette	55,000	58,000	3,500	2,700
Franklin	7,000	8,000	1,500	1,100
Knox	28,000	30,000	11,500	10,300
Licking	17,000	19,000	8,800	7,500
Madison	45,000	47,000	3,000	2,100
Marion	30,000	31,000	4,500	3,800
Morrow	20,000	22,000	6,500	5,500
Pickaway	40,000	42,000	1,300	1,800
Ross	26,000	26,000	1,900	1,800
Union	35,000	37,000	6,400	5,400
DISTRICT 5	365,000	385,000	56,500	48,000

OHIO COUNTY ESTIMATES
HOGS AND PIGS: NUMBER ON FARMS, DECEMBER 1, 1986-1987
STOCK SHEEP: NUMBER ON FARMS, OHIO, JANUARY 1, 1987-1988

COUNTY & DISTRICT	HOGS AND PIGS DECEMBER 1, 1986	HOGS AND PIGS DECEMBER 1, 1987	STOCK SHEEP JANUARY 1 1987	STOCK SHEEP JANUARY 1, 1988
		HEAD		
Belmont	*	*	3,200	2,300
Carroll	3,000	3,500	2,200	2,200
Coshocton	24,000	28,000	7,000	9,200
Harrison	*	*	8,200	7,000
Holmes	49,000	52,000	*	*
Jefferson	2,500	3,000	*	*
Tuscarawas	9,500	11,000	3,100	2,300
DISTRICT 6	90,000	100,000	26,500	25,500
Butler	25,000	26,000	1,700	1,300
Clermont	*	*	*	*
Clinton	90,000	93,000	3,300	2,400
Greene	75,000	75,000	2,800	2,300
Hamilton	*	*	*	*
Montgomery	29,000	30,000	*	*
Preble	72,000	76,000	2,000	1,600
Warren	24,000	25,000	1,700	1,100
DISTRICT 7	320,000	330,000	13,500	10,300
Adams	15,000	17,000	1,500	1,200
Brown	7,000	8,000	*	*
Gallia	3,500	4,000	*	*
Highland	36,000	43,000	4,000	3,500
Jackson	4,000	5,000	*	*
Lawrence	*	*	*	*
Pike	7,000	8,000	*	*
Scioto	*	*	*	*
DISTRICT 8	75,000	88,000	9,000	7,800
Athens	2,000	2,500	1,700	1,200
Guernsey	3,000	3,500	3,300	2,300
Hocking	2,500	3,000	2,000	1,500
Meigs	1,500	2,000	*	*
Monroe	1,500	2,000	2,300	1,600
Morgan	5,000	6,000	3,300	2,400
Muskingum	20,000	24,000	16,300	18,500
Noble	1,500	2,000	4,600	3,600
Perry	5,500	6,000	4,400	3,500
Vinton	2,000	2,500	*	*
Washington	5,500	6,500	3,000	2,000
DISTRICT 9	50,000	60,000	42,000	37,500
STATE	2,000,000	2,150,000	245,000	210,000

* Counties with less than 1,000 head not published. Counties with more than 1,000 head are also unpublished, if necessary, to preserve the confidentially of counties with less than 1,000 head.

OPERATIONS WITH CATTLE, MILK COWS, HOGS OR SHEEP, OHIO, 1980-87

Year	All farms	Operations with			
		All cattle	Milk cows	Hogs	Sheep
1980	95,000	49,000	12,600	20,000	8,000
1981	94,000	48,000	12,300	20,000	7,900
1982	93,000	47,000	12,000	16,000	8,000
1983	92,000	46,000	11,700	16,000	7,700
1984	90,000	45,000	11,300	15,000	7,500
1985	89,000	45,000	11,000	15,000	7,400
1986	88,000	44,000	10,600	14,000	7,500
1987	84,000	43,000	10,100	14,500	7,100

STOCKS IN COLD STORAGE, EAST NORTH CENTRAL(ENC) 1/ AND 48 STATES, END OF MONTH, 1986-87

Month	ENC		48 States		ENC		48 States		ENC		48 States	
	1986	1987	1986	1987	1986	1987	1986	1987	1986	1987	1986	1987
						1,000 pounds						
	American cheese				Swiss cheese				Butter			
Jan.	295,212	208,229	742,075	590,341	4,663	4,754	10,784	11,982	45,417	38,014	206,259	206,613
Feb.	286,344	194,092	721,916	564,290	4,951	4,275	12,366	10,751	64,941	49,660	242,369	231,603
Mar.	287,631	194,191	724,643	557,083	4,752	4,757	11,547	12,071	82,198	58,388	283,270	253,967
Apr.	286,991	202,470	742,876	553,304	4,882	4,870	11,660	10,676	86,725	50,284	304,950	247,892
May	302,064	216,318	778,478	569,441	4,955	4,999	11,577	11,692	97,705	50,069	330,823	251,087
Jun.	318,903	221,352	794,408	564,678	5,097	4,992	11,052	11,226	100,719	46,409	342,785	237,912
Jul.	323,986	223,799	815,068	546,089	5,775	5,278	11,540	11,671	91,881	35,184	337,641	211,210
Aug.	318,703	209,453	816,002	509,692	6,071	5,298	11,852	11,434	77,240	28,975	304,351	187,266
Sep.	280,613	199,585	759,888	485,301	5,998	5,448	12,634	11,381	69,922	27,358	279,621	176,200
Oct.	252,162	176,398	711,222	441,158	5,232	5,764	10,974	13,992	49,822	27,212	253,271	165,553
Nov.	232,520	158,549	665,473	403,351	3,767	4,413	9,672	10,991	40,736	27,028	218,527	158,486
Dec.	208,212	153,295	601,669	367,411	4,251	4,323	10,726	9,961	33,290	19,071	192,963	143,212
	Eggs, frozen				Broiler-fryers				Whole Turkeys			
Jan.	2,427	2,743	12,672	14,296	3,442	5,978	26,637	27,175	10,667	17,093	87,591	118,323
Feb.	2,400	2,614	12,762	13,481	3,845	5,379	25,179	23,501	13,148	22,359	96,499	137,531
Mar.	2,027	2,832	10,676	14,459	3,489	5,420	23,751	25,090	12,426	19,287	84,365	154,467
Apr.	2,893	2,902	12,458	14,892	3,751	5,882	22,330	26,907	16,957	22,560	117,413	181,099
May	2,451	3,558	11,618	17,371	4,035	5,892	23,740	27,011	21,791	25,567	158,412	220,238
Jun.	2,346	3,561	14,154	16,917	4,125	5,379	23,297	24,350	26,019	33,751	215,758	288,242
Jul.	2,719	4,081	15,131	17,315	4,130	5,629	23,959	24,829	40,563	48,241	298,042	364,317
Aug.	2,724	3,559	15,042	17,485	4,054	5,615	24,312	24,736	53,629	66,382	357,964	438,250
Sep.	2,671	3,237	13,961	16,467	4,018	6,028	24,981	28,267	62,079	82,035	416,085	507,949
Oct.	2,976	3,342	14,014	17,928	4,913	6,046	25,302	27,277	65,880	82,318	450,639	491,468
Nov.	2,721	3,329	12,977	17,359	5,504	5,638	22,491	24,105	21,716	24,043	174,256	210,328
Dec.	2,548	3,847	12,843	17,274	5,672	5,562	23,889	24,814	15,362	15,382	105,709	166,155
	Frozen beef, boneless				Frozen beef cuts				Frozen pork picnics			
Jan	49,698	39,021	283,346	284,393	2,630	3,241	35,092	36,215	1,334	444	5,841	4,081
Feb.	46,512	38,882	276,437	271,229	2,192	3,179	25,883	34,759	1,377	353	5,609	3,921
Mar.	40,634	46,240	271,301	277,151	2,358	3,346	25,801	33,981	2,097	775	8,709	5,766
Apr.	43,507	44,232	276,157	281,342	2,608	2,968	25,079	30,939	1,922	731	7,659	5,756
May	42,677	42,164	288,914	252,920	3,046	3,227	29,584	27,180	2,283	800	7,256	6,779
Jun.	43,654	39,421	291,641	234,186	3,265	3,224	30,006	18,546	1,601	700	5,249	4,846
Jul.	40,744	45,206	304,214	252,809	3,012	3,278	32,766	25,852	424	613	4,237	3,997
Aug.	35,570	41,193	281,611	242,638	3,305	3,691	37,807	26,635	478	197	3,890	3,204
Sep.	32,770	43,092	260,639	261,744	2,917	2,264	30,975	24,767	426	181	4,142	3,550
Oct.	36,089	46,582	263,000	279,505	2,812	2,137	29,324	28,114	476	264	4,525	4,410
Nov.	40,778	45,902	269,065	278,218	3,266	2,372	28,417	26,092	369	329	4,390	6,442
Dec.	40,899	42,496	280,534	269,228	3,190	2,338	30,020	19,423	188	379	3,652	5,732
	Hams				Bellies				Loins			
Jan.	7,113	6,053	25,473	20,791	11,490	10,227	47,633	34,900	2,495	2,816	8,598	9,217
Feb.	4,599	7,050	21,098	24,633	12,393	9,883	51,218	34,717	2,490	2,896	8,085	9,165
Mar.	2,257	3,651	15,531	16,302	14,997	10,942	62,508	41,821	3,123	2,961	9,359	9,716
Apr.	6,784	2,231	33,852	11,287	16,418	13,395	68,325	50,482	3,319	2,635	9,690	8,566
May	9,812	3,421	41,142	19,943	16,671	14,954	65,895	58,245	2,487	2,199	8,118	6,539
Jun.	9,741	3,812	43,521	20,311	15,215	12,590	61,547	47,367	1,777	2,002	6,414	6,996
Jul.	10,771	6,998	42,319	26,137	9,322	7,020	40,333	28,649	1,853	1,882	5,109	6,108
Aug.	10,809	7,150	39,537	29,435	4,361	3,818	20,797	18,938	1,874	1,860	4,910	7,275
Sep.	11,862	8,084	39,956	35,827	2,654	2,543	12,941	12,620	1,680	2,459	5,521	8,995
Oct.	13,259	8,993	42,122	32,654	4,416	3,340	17,022	14,850	1,889	2,874	6,025	9,217
Nov.	7,009	6,060	28,469	23,487	6,666	8,420	24,528	35,487	2,257	4,148	7,472	14,243
Dec.	1,994	2,392	9,112	9,562	10,530	14,655	37,771	62,089	2,863	5,274	9,261	19,722
	Veal				Lamb and mutton				Canned hams			
Jan.	3,162	3,566	11,319	6,859	830	761	11,615	11,550	6,117	6,329	34,360	30,711
Feb.	2,906	3,774	10,614	6,947	818	563	13,813	13,565	8,783	7,348	41,068	35,300
Mar.	2,715	3,262	10,414	6,049	721	646	11,811	13,595	8,091	5,898	40,044	36,384
Apr.	2,466	2,987	10,216	5,992	733	655	12,754	13,248	8,381	5,634	43,678	31,909
May	2,387	2,323	9,332	4,619	815	752	12,742	13,997	7,931	6,057	41,172	32,908
Jun.	2,462	2,118	9,004	4,378	787	843	14,068	12,007	8,052	5,842	36,544	31,684
Jul.	2,604	2,062	8,877	4,482	619	566	14,318	9,311	8,136	7,178	34,592	34,622
Aug.	2,200	1,906	7,627	4,038	678	754	15,459	8,468	8,403	6,750	37,195	31,047
Sep.	2,300	1,760	7,427	3,639	664	598	14,450	6,978	7,812	6,513	32,901	32,944
Oct.	3,146	2,017	8,258	4,278	695	596	14,641	7,036	7,633	8,852	33,125	36,711
Nov.	3,354	1,908	6,650	4,754	687	573	13,843	8,637	7,487	7,278	30,771	35,028
Dec.	3,326	1,814	6,968	4,157	656	455	12,603	7,949	5,838	5,564	27,594	27,091

1/States included are: Ohio, Indiana, Illinois, Michigan, and Wisconsin. Data are collected from warehouses normally holding commodities for 30 days or more.

COMMERCIAL SLAUGHTER: BY MONTH, OHIO, 1986 AND 1987 1/

Month	Number of head		Average liveweight		Number of head		Average liveweight	
	1986	1987	1986	1987	1986	1987	1986	1987
	Thousands		Pounds		Thousands		Pounds	
	Cattle				Calves			
January	50.6	48.0	1,132	1,122	12.1	9.1	418	367
February	38.4	37.5	1,127	1,125	8.5	7.2	416	308
March	38.2	39.9	1,137	1,133	10.7	7.3	424	284
April	45.4	38.8	1,134	1,130	12.5	7.5	425	323
May	40.9	38.6	1,122	1,116	10.5	7.6	425	359
June	45.8	42.2	1,115	1,108	7.5	8.8	353	376
July	43.9	41.8	1,109	1,113	8.2	6.5	385	305
August	42.7	40.1	1,104	1,121	7.9	7.6	393	301
September	43.3	41.5	1,102	1,114	8.0	9.6	398	276
October	44.5	42.7	1,107	1,114	7.7	12.1	392	241
November	43.1	42.4	1,067	1,114	8.3	12.6	364	194
December	47.4	38.5	1,117	1,130	10.3	13.2	358	199
Annual	524.1	492.3	1,114	1,120	112.2	109.2	399	284
	Hogs				Sheep			
January	310.0	274.1	242	246	1.4	1.4	99	87
February	265.7	244.7	244	245	1.0	1.1	103	98
March	275.4	272.4	242	243	3.7	1.2	101	101
April	298.1	261.5	239	244	3.3	5.7	95	88
May	298.2	246.2	242	244	1.9	1.4	85	92
June	274.9	243.8	241	243	2.2	2.0	94	92
July	314.2	206.7	238	245	2.4	2.1	96	102
August	313.8	194.9	234	247	2.7	2.4	105	105
September	334.4	220.6	239	249	2.0	2.2	105	106
October	376.1	232.5	240	249	1.5	1.3	104	108
November	294.3	227.5	245	251	1.4	1.6	96	111
December	304.9	249.6	245	250	1.5	1.5	95	111
Annual	3,659.9	2,874.4	241	246	24.9	23.9	98	98

1/Includes slaughter in federally inspected and in other slaughter plants, but excludes animals slaughtered on farms. Total may not add due to rounding.

MINK: FEMALES BRED AND MINK PRODUCTION, OHIO, 1983-87

Year	Standard	Pastel	Sapphire	Pearl	Violet-type	Demi-buff 1/	Misc. Unclassified	Total	Number of ranches
	Thousand females bred								
1983	18.1	5.1	1.6	6.1	2.0	5.0	5.4	43.3	
1984	17.8	3.7	1.9	6.2	2.3	3.5	4.3	39.7	
1985	18.0	4.0	2.8	3.7	1.3	2.9	6.5	39.2	
1986	17.8	1.9	0.9	0.3	1.1	3.9	6.9	32.8	
1987	19.7	1.6	0.7	2/		4.5	6.5	33.0	
	Thousand pelts produced								
1983	51.7	22.0	3.5	23.0	5.5	19.0	27.4	152.1	43
1984	57.6	13.1	7.8	21.3	6.6	18.6	18.8	143.8	43
1985	50.5	15.8	9.1	9.6	3.7	23.2	25.3	137.2	36
1986	55.1	8.3	3.3	2.1	2.5	22.4	19.3	113.0	27

1/This color class includes females bred to produce demi-buff, dark brown, violet, pastel, standard and pearl crosses and others. 2/ Included in total to avoid disclosing individual operations.

CHICKENS: INVENTORY BY CLASSES, OHIO AND UNITED STATES, DECEMBER 1, 1985-87

	Ohio			United States		
	1985	1986	1987	1985	1986	1987
	Thousands					
Hens 1 year and older	4,800	6,350	9,000	130,623	125,040	124,624
Pullets of laying age	10,400	9,550	8,600	149,146	154,900	160,905
Pullets not of laying age, over 3 months old	1,720	1,950	3,700	37,649	40,225	40,184
Pullets under 3 months old	2,200	2,900	3,200	44,512	41,746	44,026
Other chickens	80	100	100	6,618	7,220	6,482
Total 1/	19,200	20,850	24,600	368,548	369,131	377,516
All chickens, value per head 2/	1.35	1.45	1.40	1.90	1.87	1.87
Total value 1/	25,920	30,233	34,440	700,150	690,818	706,079

1/ Excludes commercial broilers. 2/ Dollars per head.

CHICKENS: INVENTORY, DISPOSITION, AND INCOME 1/, OHIO AND UNITED STATES, 1986 AND 1987

	Ohio		United States	
	1986	1987	1986	1987
	Thousands			
Lost 2/	2,000	1,900	35,820	36,481
Sold	11,900	11,200	216,938	218,212
All chickens current December 1	20,850	24,600	369,131	377,516
Pounds sold	44,030	40,320	1,019,446	1,037,512
Price per pound (cents)	12.0	9.0	12.5	11.0
Value of sales (dollars)	5,284	3,629	127,572	113,828

1/ Data cover both farm and commercial operations, but exclude commercial broilers for the 12 month period, Oct 1, previous year through Nov 30. 2/ Includes death and other losses during the 12 month period.

AVERAGE NUMBER OF LAYERS ON HAND AND EGGS PRODUCED BY MONTHS, OHIO 1986 AND 1987

Month	Layers		Eggs per 100 layers		Eggs produced	
	1986	1987	1986	1987	1986	1987
	Thousands		Number		Millions	
December 1/	15,090	16,135	2,180	2,262	329	365
January	15,160	16,470	2,157	2,240	327	369
February	15,380	16,405	1,925	2,024	296	332
March	15,160	16,210	2,140	2,270	319	368
April	14,875	16,115	2,017	2,184	300	352
May	14,805	16,445	2,128	2,189	315	360
June	14,680	16,690	2,119	2,097	311	350
July	14,683	16,665	2,179	2,172	320	362
August	14,883	16,855	2,197	2,183	327	368
September	15,245	17,135	2,145	2,101	327	360
October	15,730	17,350	2,238	2,202	352	382
November	15,935	17,475	2,196	2,192	350	383
Total	15,133 2/	16,662	256 3/	261	3,873	4,351

1/ December preceding year. 2/ Average per year. 3/ Total egg production divided by average number of layers on hand.

EGGS: PRODUCTION, DISPOSITION AND INCOME, OHIO AND UNITED STATES, 1986 AND 1987

	Ohio		United States	
	1986	1987	1986	1987
Eggs produced (million eggs)	3,873	4,351	68,398	69,492
Price per dozen (cents)	49.0	40.0	61.6	54.9
Value of production (1,000 dollars)	158,148	145,033	3,510,273	3,177,043

BROILERS: PRODUCTION AND GROSS INCOME, OHIO AND UNITED STATES, 1986 AND 1987 1/

	Ohio		United States 2/	
	1986	1987	1986	1987
Number produced (thousand head)	9,900	11,000	4,646,312	5,002,934
Pounds produced (thousand pounds)	42,570	47,300	19,651,075	21,520,242
Price per pound 3/ (cents)	34.0	23.0	34.5	28.7
Value of production (thousand dollars) 4/	14,474	10,879	6,780,124	6,175,721

1/Broiler production including other meat-type breeds. 2/Excludes States producing less than 500,000 birds 3/ Live weight equivalent price. 4/ Includes home consumption.

TURKEYS: PRODUCTION AND GROSS INCOME, OHIO AND UNITED STATES, 1986 AND 1987

	Ohio		United States	
	1986	1987	1986	1987
Heavy and light breeds raised 1/ (thousand head)	3,100	3,400	207,216	240,349
Pounds produced 2/ (thousand pounds)	78,120	88,400	4,141,697	4,888,216
Price per pound 3/ (cents)	47.0	32.0	47.1	34.8
Value of production (thousand dollars)	36,716	28,288	1,948,438	1,701,137

1/Based on turkeys hatched September 1, previous year through August 31, current year. Excludes young turkeys lost. 2/ Includes home consumption. 3/Live weight equivalent price.

CHICKENS: NUMBER OF HENS AND PULLETS OF LAYING AGE
DECEMBER 1, OHIO, 1983-87

District	HENS AND PULLETS OF LAYING AGE				
	1983	1984	1985	1986	1987
	Thousands				
10	1,750	1,860	1,750	1,400	1,650
20	300	250	250	250	260
30	1,150	1,200	1,250	1,050	870
40	4,400	5,050	5,450	6,400	7,750
50	3,900	4,950	5,600	5,760	5,530
60	320	320	320	360	350
70	140	120	120	160	180
80	210	230	240	280	820
90	230	220	220	240	190
State	12,400	14,200	15,200	15,900	17,600

1987 PRICES AND ECONOMIC DATA

AVERAGE PRICES: SELECTED COMMODITIES, OHIO, 1986 AND 1987

Commodity	Unit	1986	1987	Commodity	Unit	1986	1987
		Dollars				Dollars	
Corn for grain	Bu.	1.50	1.75	Cattle	Cwt.	50.00	58.60
Soybeans	Bu.	4.86	5.50	Cows	Cwt.	35.30	42.50
Wheat	Bu.	2.39	2.55	Steers & heifers	Cwt.	54.10	62.50
Oats	Bu.	1.15	1.50	Calves	Cwt.	56.30	73.10
All hay	Ton	64.50	79.50	Sheep	Cwt.	37.30	33.30
Rye	Bu.	2.50	2.50	Lambs	Cwt.	68.00	77.10
Tobacco - all	Lb.	1.539	1.543	Wool	Lb.	.460	.540
Burley (31)	Lb.	1.564	1.546	Farm chickens	Lb.	.120	.090
Other (42-44)	Lb.	.890	.960	Commercial broilers 3/	Lb.	.340	.230
All potatoes	Cwt	6.00	4.90	Turkeys	Lb.	.470	.320
Sugar beets	Ton	29.80	2/	Eggs, all	Doz.	.490	.400
Apples	Lb.	.174	.158	Milk, wholesale, all	Cwt.	12.50	12.70
Peaches	Lb.	.290	.280	Milk eligible for fluid market	Cwt.	12.60	12.80
Grapes	Ton	220.00	224.00	Milk, mfg. grade	Cwt.	11.60	11.70
Hogs	Cwt	49.50	51.00	Milk cows 4/	Head	825.00	925.00
Sows	Cwt	42.10	43.40				
Barrows & gilts	Cwt	50.00	51.50				

1/Crops are marketing year average price: chickens and hogs, December-November season average price; other items, annual average price. 2/Not available. 3/Live weight equivalent price. 4/For milk herd replacements.

INDEXES OF PRICES RECEIVED BY FARMERS, OHIO, CONSUMER PRICE INDEX, AND PRODUCER PRICE INDEX, U.S., 1986 AND 1987

Month	All farm products		Lvstk. & lvstk. products 2/		All crops 1/		Consumer (CPI)		Producer (wholesale)	
	1986	1987	1986	1987	1986	1987	1986	1987	1986	1987
	1977=100						1967=100			
January	112	107	126	131	100	85	328	333	309	301
February	111	108	122	132	99	86	328	334	304	302
March	110	108	122	131	99	87	326	336	300	303
April	108	111	118	135	99	90	325	338	298	305
May	111	116	123	138	101	95	326	339	299	307
June	112	116	127	138	98	95	328	340	299	308
July	113	133	133	137	93	90	328	341	298	310
August	110	111	137	138	85	86	329	343	297	311
September	109	112	138	139	82	87	330	344	298	310
October	106	111	133	135	80	88	331	345	298	311
November	108	110	134	127	84	94	331	346	299	312
December	108	110	132	126	85	96	331	346	299	312

1/Includes indexes for major crops, fruit, potatoes and vegetables. 2/ Includes wool price index.

PRICES PAID FOR FEED AND FEED-PRICE RATIOS, CORN BELT 1/, 1986 AND 1987

Item	Unit	Jan. 1986	Apr. 1986	Jul. 1986	Oct. 1986	Jan. 1987	Apr. 1987	Jul. 1987	Oct. 1987	Jan. 1988
					Dollars					
Hog feed 14-18% protein	cwt.	9.80	9.12	8.90	8.80	8.50	8.20	8.60	8.80	9.30
Hog concentrate 38-42% protein	cwt.	13.80	13.00	13.20	13.20	13.30	13.10	14.50	14.45	15.60
Beef cattle concentrate 32-36% protein	cwt.	13.50	11.80	11.80	12.20	12.10	11.60	12.30	12.75	13.80
Dairy feed 16% protein	ton	181.00	170.00	161.00	155.00	157.00	151.00	154.00	160.00	180.00
Dairy feed 32% protein	ton	240.00	248.00	245.00	260.00	255.00	255.00	272.00	273.00	299.00
Laying feed	ton	170.00	186.00	187.00	183.00	176.00	166.00	176.00	180.00	208.00
Turkey grower	ton	200.00	209.00	215.00	205.00	205.00	187.00	206.00	208.00	220.00
					RATIO					
Egg-feed ratio 2/		5.9	6.5	6.8	7.0	7.2	4.8	4.0	4.0	3.3
Hog-corn ratio 3/		18.7	17.4	28.3	38.0	32.3	32.1	35.9	30.4	23.5
Milk-feed ratio 4/		1.40	1.46	1.50	1.72	1.74	1.66	1.57	1.62	1.42

1/ January 1986 is Ohio data. After February 1986 the prices are for the Corn Belt Region (Ohio, Illinois, Indiana, Iowa, Missouri). 2/ Pounds of feed equal in value to 1 dozen eggs. 3/ Bushels of corn equal in value to 100 pounds of hog, live weight. Ohio prices used for this ratio. 4/ Pounds of 16% dairy feed equal in value to 1 pound of whole milk.

Average Prices Paid by Farmers For Fuels in Corn Belt States 1/

Fuel	1986 Jan	1986 Apr	1986 July	1986 Oct	1987 Jan	1987 Apr	1987 July	1987 Oct	1988 Jan
				Dollars per gallon					
Gasoline									
Service Station, unleaded	1.19	.843	.851	.800	.850	.910	.950	.960	.880
Bulk Delivery, leaded reg	1.14	.836	.835	.810	.870	.920	.970	.960	.890
Diesel, bulk delivery	1.00	.728	.604	.640	.690	.720	.750	.770	.750
L.P. gas bulk delivery 2/	.774	.670	.639	.590	.590	.580	.510	.540	.560

1/ Illinois, Indiana, Iowa, Missouri, Ohio. 2/ U.S. price for Jan, Apr, July 1986.

PRICES RECEIVED BY FARMERS: SELECTED COMMODITIES, BY MONTHS, OHIO, 1986 AND 1987 1/

Commodity and year	Unit	Jan.	Feb.	Mar.	Apr.	May	Jun.
				Dollars			
CORN							
1986	Bu.	2.37	2.36	2.29	2.29	2.41	2.40
1987		1.45	1.44	1.46	1.57	1.74	1.79
SOYBEANS							
1986	Bu.	5.27	5.29	5.27	5.27	5.33	5.30
1987		4.84	4.76	4.81	4.98	5.31	5.59
WHEAT							
1986	Bu.	3.19	3.26	3.40	3.45	3.41	2.46
1987		2.69	2.72	2.88	2.79	2.85	2.48
OATS							
1986	Bu.	1.13	1.18	1.11	1.01	1.02	1.00
1987		1.60	1.58	1.55	1.54	1.66	1.64
ALL HAY							
1986	Ton	62.00	60.00	55.00	55.00	51.00	47.00
1987		78.00	78.00	79.00	82.00	84.00	70.00
ALFALFA HAY							
1986	Ton	68.00	65.00	63.00	60.00	55.00	50.00
1987		80.00	80.00	82.00	85.00	90.00	80.00
OTHER HAY							
1986	Ton	45.00	43.00	40.00	40.00	40.00	36.00
1987		65.00	65.00	65.00	65.00	67.00	60.00
ALL POTATOES							
1986	Cwt.	5.85	4.50	5.60	5.85	7.00	-
1987		7.45	8.55	7.65	-	-	-
HOGS							
1986	Cwt.	44.40	43.10	40.70	39.90	45.40	52.70
1987		46.70	47.60	46.50	50.50	54.40	59.20
SOWS							
1986	Cwt	35.90	37.80	37.00	36.70	38.40	43.60
1987		42.40	41.70	40.90	44.10	46.00	44.40
BARROWS & GILTS							
1986	Cwt	44.90	43.30	41.00	40.10	45.80	53.30
1987		46.90	48.00	46.80	51.00	54.70	60.10
CATTLE, ALL BEEF							
1986	Cwt	51.60	48.50	48.10	47.00	48.70	49.50
1987		51.70	53.70	56.10	59.50	62.80	60.40
COWS							
1986	Cwt	34.80	35.50	35.30	33.60	36.00	37.10
1987		38.20	40.20	41.70	42.00	44.20	44.50
STEERS & HEIFERS							
1986	Cwt	58.00	52.70	51.70	50.20	51.50	52.00
1987		56.00	57.40	59.50	62.40	65.90	64.30
CALVES							
1986	Cwt	52.30	57.60	58.10	54.60	58.30	57.50
1987		61.50	62.50	65.40	71.00	78.40	82.20
SHEEP							
1986	Cwt	37.60	37.90	29.10	26.00	31.70	39.90
1987		32.90	36.70	31.60	22.70	33.40	36.90
LAMBS							
1986	Cwt	65.50	69.20	74.00	76.80	78.50	72.80
1987		75.70	75.40	82.60	93.80	88.20	77.50
WOOL							
1986	Lb	.420	.420	.410	.430	.470	.530
1987		.420	.420	.450	.450	.530	.460
EGGS							
1986	Doz	.500	.470	.600	.480	.450	.380
1987		.480	.440	.400	.400	.370	.320
ALL MILK							
1986	Cwt	12.70	12.70	12.40	12.10	12.10	11.90
1987		13.40	13.20	12.90	12.50	12.10	12.00
MILK, FLUID MARKET							
1986	Cwt	12.80	12.80	12.50	12.20	12.20	12.00
1987		13.60	13.40	13.00	12.60	12.20	12.10
MILK, MFG. GRADE							
1986	Cwt	12.20	12.10	11.80	11.70	11.70	11.20
1987		11.80	11.80	11.70	11.50	11.50	10.90
COWS 2/							
1986	Head	800.00	-	-	810.00	-	-
1987		850.00			940.00		

1/ 1987 data is preliminary. 2/For replacement dairy stock.

PRICES RECEIVED BY FARMERS: SELECTED COMMODITIES, BY MONTHS, OHIO, 1986 AND 1987 (CONT)

Commodity and year	Unit	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
				Dollars			
CORN							
1986	Bu.	2.09	1.68	1.47	1.38	1.48	1.52
1987		1.64	1.55	1.56	1.60	1.74	1.73
SOYBEANS							
1986	Bu.	5.30	5.09	4.84	4.63	4.78	4.78
1987		5.43	5.15	5.09	5.14	5.52	5.76
WHEAT							
1986	Bu.	2.34	2.20	2.24	2.49	2.61	2.67
1987		2.39	2.43	2.58	2.60	2.76	2.92
OATS							
1986	Bu.	0.79	0.72	0.80	0.93	1.31	1.47
1987		1.09	1.55	1.54	1.81	1.71	1.90
ALL HAY							
1986	Ton	47.00	51.00	56.00	61.00	68.00	73.00
1987		60.00	65.00	72.00	80.00	86.00	86.00
ALFALFA HAY							
1986	Ton	50.00	55.00	60.00	65.00	70.00	75.00
1987		70.00	75.00	80.00	85.00	90.00	90.00
OTHER HAY							
1986	Ton	36.00	40.00	45.00	50.00	55.00	60.00
1987		50.00	55.00	60.00	65.00	70.00	70.00
ALL POTATOES							
1986	Cwt	6.60	4.90	4.95	5.90	6.00	6.50
1987		7.95	4.85	4.05	4.45	5.60	5.45
HOGS							
1986	Cwt	59.20	62.00	58.00	52.50	52.60	50.30
1987		58.80	57.90	53.70	48.60	40.10	39.80
SOWS							
1986	Cwt	47.30	52.60	52.90	48.20	46.70	42.20
1987		44.50	47.60	48.20	44.30	34.90	32.40
BARROWS & GILTS							
1986	Cwt	60.00	62.60	58.20	52.70	52.80	51.00
1987		59.80	58.70	54.10	48.80	40.40	40.20
CATTLE, ALL BEEF							
1986	Cwt	50.60	51.30	53.40	50.70	50.50	49.10
1987		58.10	60.10	62.30	60.90	57.30	57.30
COWS							
1986	Cwt	35.40	35.10	36.00	35.40	34.60	34.80
1987		42.80	42.80	43.80	43.50	42.70	44.20
STEERS & HEIFERS							
1986	Cwt	54.30	55.40	57.40	55.40	56.10	55.60
1987		62.30	63.90	65.90	65.60	62.20	62.10
CALVES							
1986	Cwt	54.90	55.80	59.30	55.60	54.70	56.80
1987		75.40	76.40	78.40	75.90	77.70	69.50
SHEEP							
1986	Cwt	39.00	42.10	47.20	33.50	44.00	38.10
1987		33.00	39.70	31.80	36.50	41.60	55.70
LAMBS							
1986	Cwt	65.80	64.60	64.60	60.30	62.80	70.30
1987		71.90	67.40	71.60	72.00	70.50	70.80
WOOL							
1986	Lb	.460	.450	.440	.440	.450	.470
1987		.500	.500	.460	.460	.430	.450
EGGS							
1986	Doz	.450	.470	.520	.460	.510	.540
1987		.350	.340	.390	.360	.350	.340
ALL MILK							
1986	Cwt	11.90	12.10	12.50	12.90	13.20	13.40
1987		12.10	12.20	12.60	13.00	13.00	12.90
MILK, FLUID MARKET							
1986	Cwt	12.00	12.20	12.60	13.00	13.40	13.60
1987		12.20	12.30	12.70	13.10	13.10	13.00
MILK, MFG. GRADE							
1986	Cwt	11.10	11.00	11.40	11.60	11.80	11.90
1987		11.00	10.90	11.90	12.20	12.10	12.00
MILK COWS							
1986	Head	840.00	-	-	840.00	-	-
1987		950.00			950.00		

FARM INCOME STATEMENT AND BALANCE SHEET OF U.S. AND OHIO AGRICULTURE, 1983-86 OHIO, 1985-86 U.S. 1/

Gross farm income	Ohio				United States 2/	
	1983	1984	1985	1986 3/	1985	1986 3/
	Million dollars					
Cash receipts from farm marketings	3,559	3,606	4,115	3,609	143,924	135,903
Government payments to farm operators and landlords	176	232	150	269	7,704	11,813
Home consumption of farm products	34	44	31	30	929	889
Rental value of farm dwellings	446	421	317	283	10,880	9,871
Other farm income 4/	38	45	56	53	4,986	5,051
Total realized farm income	4,253	4,348	4,668	4,244	168,423	163,527
Production costs:						
Feed bought	471	425	382	346	18,015	16,179
Livestock bought, except horses and mules	67	59	75	61	8,996	9,609
Seed bought	132	152	148	132	3,350	2,984
Fertilizer and lime bought	293	306	278	263	7,258	5,787
Repairs and operation of capital items	248	244	240	245	6,370	6,426
Wages for hired labor (cash and perquisites)	179	178	180	182	9,792	9,875
Miscellaneous 5/	1,013	1,016	941	821	36,789	32,255
Total current farm operating expense	2,403	2,382	2,245	2,048	90,571	83,115
Depreciation and other consumption of farm capital 6/	885	852	740	694	20,891	18,997
Taxes of farm real estate and personal property	137	124	124	120	4,231	4,125
Interest on mortgage debt 7/	323	320	261	241	9,878	9,131
Net rent to non operator landlords 8/	106	305	292	205	8,124	6,684
Total production expenses	3,854	3,984	3,661	3,307	133,696	122,052
Net farm income before inventory adjustments	399	365	1,007	937	34,728	41,475
Net change in farm inventories	(445)	493	(140)	(118)	(2,663)	(3,269)
Net farm income after inventory adjustments	(46)	858	867	819	32,038	38,206
Number of farms (thousands)	92	90	89	88	2,275	2,212
Net income per farm (dollars) 9/	(500)	9,533	9,742	9,307	14,083	17,272
Net farm income as percent of gross (percent) 9/	(1.1)	19.7	18.6	19.3	19.0	23.4
Farm assets:	Dec. 31 1983	Dec. 31 1984	Dec. 31 1985	Dec 31.. 1986	Dec. 31 1985	Dec. 31 1986
Real estate	22,960	17,791	16,005	14,884	606,774	554,032
Livestock and poultry	976	1,008	985	1,048	46,290	47,633
Machinery and motor vehicles	3,900	3,822	3,495	3,108	92,414	84,487
Crops	1,015	1,133	921	677	23,068	18,434
Household equipment & furnishings	804	755	813	890	27,825	30,452
Financial assets	1,579	1,673	1,746	1,878	50,161	54,323
Total farm assets	31,233	26,181	23,966	22,485	846,531	789,361
Farm debt:						
Real estate debt	3,148	3,063	2,773	2,454	105,851	95,124
Non-real estate debt	1,974	1,876	1,595	1,440	82,175	71,268
CCC loans 11/	135	127	477	485	17,336	18,805
Total farm debt	5,123	4,939	4,369	3,893	188,026	166,392
Equity	26,110	21,242	19,598	18,591	658,505	622,969
Debt/assets ratio	16.4	18.9	18.2	17.3	22.2	21.1
Debt/equity ratio	19.6	23.3	22.3	20.9	28.6	26.7
Net farm income/debt 9/ 10/	-	17.4	19.8	21.0	17.0	23.0

1/ Components may not add to totals in this table because of rounding. 2/Includes Alaska and Hawaii. 3/Preliminary. 4/Machine hire and custom work and recreational income. 5/Includes machine hire, pesticides, electricity, fuel expenses, interest and depreciation for operator's dwelling, interest on non-real estate debt, and other expenses. 6/Valued at replacement cost. 7/Includes interest on the operator's dwelling. 8/After subtracting taxes, mortgage interest and other expenses paid by landlords. 9/Net farm income after inventory adjustment. 10/Calculated using end of year debt. 11/ CCC loans not included in total farm debt.
( ) Parenthesis indicate negative number.

NONREAL ESTATE FARM DEBT OUTSTANDING (including operator households), OHIO DECEMBER 1, 1974-86 1/

	DEBT OWED TO REPORTING INSTITUTIONS (excluding CCC)							
YEAR	ALL OPERATING BANKS	PRODUCTION CREDIT ASSOC.	FEDERAL INTERMEDIATE CREDIT BANKS	FARMERS HOME ADMINISTRATION	DEBT OWED TO INDIVIDUALS AND OTHERS	TOTAL EXCLUDING CCC LOANS	PRICE SUPPORT & STORAGE LOAN MADE OR GUARANTEED BY CCC	TOTAL INCLUDING CCC LOANS
	MILLION DOLLARS							
1974	276	399	4	15	207	901	8	909
1975	315	476	2	16	248	1,058	9	1,067
1976	347	561	4	14	279	1,206	17	1,223
1977	410	666	6	15	325	1,421	71	1,492
1978	454	769	8	36	356	1,622	71	1,693
1979	482	871	9	65	403	1,830	60	1,890
1980	473	909	10	90	454	1,935	70	2,005
1981	504	979	11	114	491	2,099	96	2,195
1982	542	844	12	213	524	2,136	249	2,385
1983	591	628	13	235	508	1,974	110	2,084
1984	624	475	16	286	475	1,876	108	1,984
1985	554	299	10	328	404	1,595	468	2,063
1986	515	275	0	318	330	1,438	482	1,920

REAL ESTATE DEBT OUTSTANDING (including operator household), OHIO DECEMBER 1, 1974- 1986

YEAR	FEDERAL LAND BANKS	FARMERS HOME ADMINISTRATION	LIFE INSURANCE COMPANIES	ALL OPERATING BANKS	INDIVIDUALS AND OTHERS	CCC STORAGE AND DRYING LOANS	TOTAL
	MILLION DOLLARS						
1974	366	39	89	322	426	-	1,242
1975	453	42	90	330	461	-	1,375
1976	547	44	103	377	498	-	1,569
1977	660	48	135	432	557	-	1,832
1978	793	54	192	449	610	-	2,097
1979	953	93	252	457	710	42	2,507
1980	1,112	115	298	469	769	44	2,806
1981	1,313	137	310	463	809	41	3,073
1982	1,391	146	299	449	815	33	3,134
1983	1,376	170	294	459	823	26	3,148
1984	1,345	196	277	464	762	18	3,062
1985	1,119	213	239	500	693	9	2,773
1986	894	220	198	559	611	4	2,487

Source: Economic Indicators of the Farm Sector, State Financial Summary, 1986 1/ Numbers may not add because of rounding.

VALUE OF EXPORT SHARES 1/ OF AGRICULTURAL COMMODITIES, OHIO AND U.S., FISCAL YEARS 1982-87

Year ended Sept 30	Wheat and products	Feed Grains and products 2/	Soybeans and products 3/	Tobacco unmfd	Fruits and preps	Vegetables and preps	Feeds and fodder	Seeds
				MILLION DOLLARS				
				OHIO				
1982	243.4	317.1	420.4	8.9	4.8	17.1	15.1	6.0
1983	137.8	393.9	472.9	10.9	5.5	18.3	15.4	6.7
1984	142.5	467.8	484.3	9.2	3.2	22.2	16.5	6.5
1985	78.0	433.3	389.5	12.4	3.7	20.2	17.3	7.0
1986	102.8	266.3	426.9	8.7	3.5	24.0	19.5	7.3
1987	70.4	247.5	430.9	9.7	2.5	26.7	23.0	7.4
				UNITED STATES				
1982	7,675.1	7,685.1	8,429.9	1,486.5	1,394.1	1,442.1	600.7	299.1
1983	6,223.1	7,342.8	7,776.4	1,487.2	1,374.3	989.5	563.3	333.0
1984	6,783.2	9,076.0	7,548.1	1,432.7	1,270.2	998.5	550.0	325.9
1985	4,525.9	7,600.6	5,267.1	1,587.9	1,200.1	945.8	472.8	352.3
1986	3,546.8	4,707.2	5,578.5	1,317.5	1,237.0	998.2	554.6	366.4
1987	3,119.4	4,661.7	5,747.0	1,203.9	1,466.0	1,177.7	670.9	369.6

VALUE OF EXPORT SHARES 1/ OF AGRICULTURAL COMMODITIES, OHIO AND U.S., FISCAL YEARS 1982-87 (continued)

Year	Live animals and meat ex poultry	Hides and skins 4/	Poultry and products	Fats oils and greases	Dairy products	Other 5/	Total
			MILLION DOLLARS				
			OHIO				
1982	27.8	14.6	11.1	12.5	12.8	19.7	1,131.2
1983	24.9	15.8	9.4	11.1	11.5	23.5	1,157.5
1984	21.3	20.8	8.6	12.4	12.3	24.1	1,251.8
1985	19.9	19.7	8.9	10.2	11.3	22.5	1,054.0
1986	22.3	21.4	10.7	7.8	12.0	25.3	958.5
1987	24.2	21.5	12.5	6.0	13.4	26.1	921.8
			UNITED STATES				
1982	1,230.3	1,021.2	579.0	701.6	367.8	6,182.0	39,094.5
1983	1,187.8	997.5	451.1	593.2	348.9	5,101.4	34,769.5
1984	1,205.9	1,317.8	412.8	703.2	393.5	6,009.0	38,026.8
1985	1,160.9	1,324.6	392.8	607.9	413.5	5,348.6	31,200.8
1986	1,356.7	1,440.4	455.3	476.5	430.2	3,841.4	26,306.9
1987	1,630.2	1,665.6	594.3	416.8	489.9	4,660.8	27,873.8

1/The export shares for Ohio were derived from the State's contribution to national output. They do not show actual State exports, but instead reflect the prorated stake in the national export total. 2/Includes corn, barley, oats, grain sorghum and other coarse grain products. 3/Soybeans, soybean meal, and soybean oil. 4/Distribution of furskins to the State prorated level includes mink pelts. 5/Other includes rice, sunflower seed and oil, peanuts and products, cotton and linters, cotton-seed and products and tree nuts which were listed separately for U.S. but which are not estimated for Ohio. Also includes other products estimated for Ohio and the U.S. but not listed above.

VALUE OF U.S. FOREIGN TRADE AND TRADE BALANCE, (AGRICULTURAL AND TOTAL) - OCTOBER-SEPTEMBER 1982-87

	Agriculture Trade					Total Trade		
Year	Agriculture Exports	Agriculture share of Total	Agriculture Imports	Agriculture share of total	Agriculture Trade balance	Total Exports 1/	Total Imports 2/	Total Trade balance
	Mil. Dollars	Percent	Mil. Dollars	Percent		Million Dollars		
1982	39,097	18	15,485	6	23,612	215,405	248,834	-33,429
1983	34,769	18	16,373	7	18,396	194,142	246,900	-52,758
1984	38,027	18	18,916	6	19,111	208,041	316,652	-108,611
1985	31,201	15	19,740	6	11,461	210,437	333,462	-123,025
1986	26,307	13	20,875	6	5,432	202,938	363,730	-160,792
1987	27,874	12	20,643	5	7,231	227,821	388,024	-160,203

1/ Domestic exports. 2/ Imports for consumption, customs value basis.
Source: Foreign Agricultural Trade of the United States November/December 1987. Fiscal Year 1987.

Ohio Department of Agriculture
1987 Annual Report

Richard F. Celeste
GOVERNOR

Steven D. Maurer
DIRECTOR

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AN EQUAL OPPORTUNITY EMPLOYER

DIVISION OF ADMINISTRATION

The Division of Administration provides support for the various operating divisions of the Ohio Department of Agriculture (ODA). It performs the basic functions of administration including: fiscal, human resources, public relations, labor relations, legal services, data processing, and departmental management.

The Administration Division is also responsible for the operation and maintenance of ODA's laboratory complex, 8995 East Main Street, Reynoldsburg, Ohio 43068.

EMPLOYEES BY DIVISION

(As of January 31, 1988

701	Administration	49
702	Animal Industry	59
703	Foods, Dairies, & Drugs	41
704	Markets	48
705	Plant Industry	65
706	Weights & Measures	15
707	Meat Inspection	195
708	Fairs & Amusement Ride Safety	15
709	Grain Warehouse	17
TOTAL EMPLOYEES		504

LABOR RELATIONS COORDINATOR

The Labor Relations Coordinator serves as the Director's designee to preside over 3rd Level Grievance hearings. The coordinator provides the Department with information and technical knowledge with regards to the Union contract and functions as the liaison between the Department and the Union; and between the Department and the State Office of Collective Bargaining.

AGRICULTURAL FINANCING COMMISSION

The Ohio Agricultural Financing Commission (OAFC) was created and authorized by the 115th General Assembly (H.B. 826) and officially began its operation on January 11, 1985. The Commission consists of nine members: Director Steven D. Maurer, ODA; Director David Baker, Ohio Department of Development; Mary Ellen Withrow, treasurer, State of Ohio; Joseph Brubaker, member; Judith Hall, CPA; Glenn Lackey, member; James Lewis, vice chairman; Francis Less, member; and Joseph Luby, member.

The Commission's original primary function was to issue tax-exempt revenue bonds to private lending institutions, thereby generating money that Ohio's farmers could borrow at low interest

rates. Farmers could then use the money to acquire and improve agricultural land and equipment. In 1986, due to changes in the federal tax laws, the feasibility and effectiveness of issuing tax-exempt agricultural revenue bonds was greatly reduced. Accordingly, the Commission's activities were significantly reduced during the last half of 1986 and in 1987, because of the inability of lending institutions to capture the benefits of tax-exempt status on their cost of funds.

The main focus of OAFC activities in 1987 was to research the feasibility of creating a taxable bond program, in addition to investigating alternative financing possibilities. The alternative programs are still under investigation and if any of the programs can be found to be economically sound, the program would be structured to enable farmers to borrow money from lending institutions at lower than commercial interest rates.

The following is a list of financing programs that are being investigated:

A. FmHA Guarantee loan Programs (Taxable Bond Program)

   1. Current FmHA Loan Guarantees of banks sold through the Ohio Agricultural Financing Commission (portfolio buyout).

   2. Existing bank loans switched to FmHA Loan Guarantee Program.

   3. Existing Insured (direct) Loan of FmHA switched to guarantee portion of FmHA portfolio.

B. Certificate of Deposit Program (FDIC insured, similar to Link Deposit Program only for intermediate and long-term loans).

C. Secondary market for farm real estate loans purchased through the OAFC.

D. Land Banking Program.

   1. State or OAFC purchasing land foreclosures on lender's books.

E. State Guarantee Program for restructuring existing agricultural loans at commercial banks.

F. Venture Capital Program - Fixed assets only.

Initial findings present the possibility of pursuing the Taxable Bond Programs in 1988. Any program is subject to OAFC member approval.

SUMMARY OF 1987 RULE CHANGES

In 1987 the Department rescinded administrative rules governing the grading of cucumbers and tomatoes. These rules were no longer needed because federal grades are now used for these commodities.

In order to bring Department rules on economic poisons in line with EPA guidelines, a definition for wood preservation chemicals was added to rule 901:5-11-01.

Ten new rules were adopted to provide for the certification of forestry seeds. These rules define forestry trees, classes of seeds and set limitations on germination. These rules also set requirements for forestry seed inspectors, establish units of certification and sets out labeling requirements for seeds.

The Department also promulgated rules establishing a list of prohibited noxious weeds in order to assist local governments in the regulation of these weeds. In addition, rule 901:5-13-03 was amended to reduce the members of the Ohio Crop Variety Review Board to increase the efficiency of the Board's operations.

Amendment of Rule 901:5-7 established a source of accounting rules to be followed by agricultural societies.

Finally, the Department adopted amendments to its existing rules governing the Ohio Pseudorabies Program to make that program compatible with the principal states from which Ohio imports and to which it exports swine.

STATEMENT OF EXPENDITURES FOR FISCAL YEAR 1987

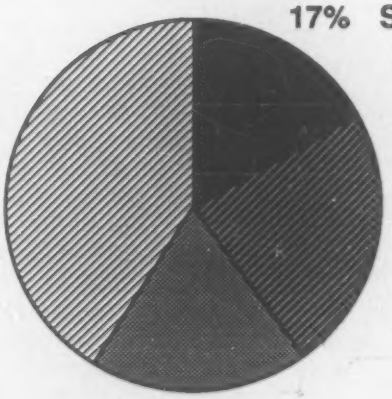
OPERATING EXPENSES

FUND 11	GENERAL REVENUE FUND
503 Swine and Cattle Breeder Awards	$ 6,400.00
401 Aujeskys Disease	150,652.46
405 Rodent Control	56,964.27
499 Meat Inspection (State Match)	2,931,837.01
501 County Agricultural Societies	151,905.00
411 International Trade	83,817.33
413 Gypsy Moth Prevention	39,136.50
TOTAL SPECIAL PURPOSE ITEMS	3,420,712.57
GRAND TOTAL EXPENDITURES ALL FUNDS	$ 20,271,607.37

OPERATING EXPENSES

FUND 11	GENERAL REVENUE FUND
701 Administration	$2,417,293.73
702 Animal Industry	1,576,501.58
703 Foods, Dairies and Drugs	1,163,078.86
704 Markets	143,242.51
705 Plant Industry	1,897,589.31
706 Weights and Measures	505,334.18
708 Fairs & Amusement Ride Safety	357,089.69
709 Grain Warehouse	188,207.22
TOTAL OPERATING EXPENDITURES	$8,248,337.08

*Includes salary, fringe benefits, maintenance and equipment



GENERAL OPERATING REVENUE ACCOUNTS
$8,248,337.08
41%

17% SPECIAL PURPOSE GENERAL REVENUE ACCOUNTS
$3,420,712.57

23%

FEDERAL MONIES SPECIAL REVENUE ACCOUNTS
$4,690,048.34

SPECIAL ACCOUNTS
STATE SPECIAL REVENUE ACCOUNTS 19%
$3,912,509.38

REYNOLDSBURG LABORATORY

The Laboratory Coordination office is responsible for supervision of the physical condition and the needs of the 15-building complex located in Reynoldsburg. The new Animal Diagnostic Laboratory, a major capital improvement project, has been completed.

Numerous tours have been conducted through the Reynoldsburg Laboratory-groups ranged from elementary school children to college students. In total, there were 48 tours in 1987.

PUBLIC INFORMATION OFFICE

The Public Information Office serves as a link between ODA's divisions, the consuming public, and the agricultural constituency. Information is channeled through this office for use by the media, legislators, and other interested parties. In addition, special projects and programs are conducted to better inform and educate the public about agriculture.

Activities focus upon three areas: agricultural protection and regulation, promotion, and consumer education.

1987 OVERVIEW

* The Ohio Department of Agriculture sponsored a free seminar entitled "Farm Financial Management in Times of Stress" that was offered to Ohio farmers. The seminar addressed concerns about government farm programs, state financial assistance programs, and the new Chapter 12 Federal Bankruptcy Law.

* A Gypsy Moth Management Council was organized to develop a comprehensive cooperative plan to combat the movement of Gypsy Moth.

* Director Steven D. Maurer, was appointed to the Mid-West Association of State Department of Agriculture's (MASDA) Resolutions Committee.

* The Greater Ohio Showmen's Association (GOSA) recognized ODA's Division of Fairs and Amusement Ride Safety for their cooperation with industry towards achieving ride safety in Ohio.

* One of Africa's leading champions of human rights, Abdou Diouf, President of Senegal and Chairman of the Organization of African Unity, visited Ohio in September by invitation of Governor Richard F. Celeste. Director Steve Maurer was involved in a two-day conference that assisted linking Senegal business people and Ohio agribusiness.

* A free seminar on Migrant/Grower Affairs was sponsored by ODA. This "1987 Grower Congress" was geared toward providing information to producers and migrant labor leaders. It also focused on the 1986 Reform Act on migrant workers and their employers, migrant housing rules, and camp health regulations.

* Ohio was one of three states to be granted Class B Pseudorabies (PRV) status by the National Pseudorabies Control Board. Ohio was the second state in the nation to achieve this status. The status allows feeder pigs to move without testing from Class B status states to other states that recognize the ranking. The importance of controlling PRV holds economic importance to the livestock industry because PRV losses are estimated to be $30 million a year nationwide.

* Ohio's First Lady, Dagmar Celeste, promoted "Heartland Cuisine" with a luncheon to share a "taste of Ohio" at the Governor's Residence with food experts and food editors from Ohio's major newspapers across the State. The "Heartland Cuisine" promotion will reinforce the state's Buy Ohio marketing effort, instituted in 1983 by Governor Richard F. Celeste to promote products grown and made in Ohio. The logo for "Heartland Cuisine" was introduced at the luncheon. ODA presented the "Heartland Cuisine" pro-

motion at the annual Symposium on American Cuisine in Charleston, South Carolina.

* To consolidate departmental operations the Division of Grain Warehouse, Fair and Amusement Ride Safety, Criminal Investigations, Food Stamp Fraud, Markets and the Public Information Print Shop moved to the ODA's Reynoldsburg Laboratory, 8995 E. Main Street, Reynoldsburg, Ohio 43068. The new phone number for these divisions is: (614)866-6361.

* Fair dates for Ohio's 96 county and independent fairs and the Ohio State Fair were approved and released for 1988.

ODA Marketing Plan Unveiled - "Heartland Cuisine," a market information clearing house and organically grown produce certification were part of a comprehensive set of initiatives unveiled by Director Maurer, aimed at helping producers market their agricultural products.

The initiatives include the following:

1. To develop a statewide marketing effort to reach producers and consumers to inform all Ohioans that superior-quality products are produced in Ohio by Ohioans.

2. To support legislation that would limit the legal liabilities of municipalities who sponsor farmers' markets. (Currently, some communities are reluctant to use city ground for farmers' markets because of the legal liability they would incur.)

3. To institute a clearing house of market information for the farm market industry of Ohio where growers with excess supply can call with produce type, quantity, and location and where information will be compiled daily during the peak growing season and be made available on a record-a-phone for commercial buyers to telephone.

4. To certify "Organically Grown" produce. (This area is a small but growing niche. To ensure that consumers are getting what they are paying a premium for, the Department will investigate establishing a "Certified Organically Grown" grade for products.)

5. To propose the establishment of an A-D-A-P-T Program (Alternate Development of Agricultural Processing Technologies). (This program, if adopted, would earmark a portion of Ohio's economic development loan portfolio for new agri-processing companies. ADAPT would also utilize the State's Thomas Alva Edison program to bring the resources of Ohio's universities and agri-processing industries together in the application of new advances in food processing.)

URBAN CONSUMER AFFAIRS

This office represents ODA to northern Ohio's urban residents. The goal is to help consumers increase their awareness of food and commodity purchases and provide a mode whereby a complaint can be registered if they feel they have been short weighted, sold an unwholesome product, or if a product has been mislabeled. This function is provided through group presentations, seminars, and the news media.

In fiscal 1987, the Consumer Affairs Officer served and/or represented the department on the following committees or boards:

Greater Cleveland Interchurch Council, Hunger Task Force Commission;

Future Farmer of America, (FFA);

Greater Cleveland Foodbank including participation in the 1987 annual Foodbank Food Fair;

"Fresher from Ohio"

In 1987, this office responded to the following requests for consumer information and/or referrals:

Referrals to Cuyahoga County Extension Service	63
Referrals to Federal, State, County and Local agencies	37
Complaints forwarded to the local and/or Columbus office of the Attorney General	33
Consumer complaints referred to ODA's toll-free number 1-800-282-1955	42
Responded to the request for food related pamphlets, state maps, fair schedules and job applications	40

DIVISION OF WEIGHTS AND MEASURES

In Ohio, the Director of Agriculture is the State Sealer of Weights and Measures. A Deputy Sealer (Chief of the Division of Weights and Measures) is appointed by the Director and is responsible to the Director for the administration and enforcement of all weights and measures laws of the Ohio Revised Code. The office of the Chief of Weights and Measures and the State Metrology Laboratory, where the state's primary mass, length and volume standards are housed, are both located at the Department's laboratory facility in Reynoldsburg.

Presently, the Division of Weights and Measures has the responsibility of implementing seven major programs.

Metrology - Ohio's lab is well equipped with personnel capable of performing routine testing, calibrations and specialized requests with a high degree of technical and professional competence. The laboratory is a participant in the Laboratory Auditing Program administered by the National Bureau of Standards. The laboratory and state metrologists have also participated in the Northeast Measurement Assurance Program and its round-robin activities since the conception of the program in 1979. The Division continues to work with the National Bureau of Standards' Office of Weights and Measures to insure compliance with the "certification by measurement area" program. A Laboratory Quality Assurance Program has also been implemented. The Division recognizes the need to continually upgrade the staff training, measurement equipment and overall laboratory competence.

This year 8,936 official, commercial or scientific standards were submitted to the metrology laboratory for testing or calibration. The lab performed services for 169 different companies, 55 local jurisdictions in Ohio and 4 other governmental agencies.

National Type Evaluation Program (NTEP) Laboratory - Ohio is known as the "cradle of the scale industry" due to the large number of major scale manufacturers that distribute their devices worldwide. The Ohio scale industry depends upon an effective, equitable state weights and measures program in order to complete profitably with industry from neighboring states, as well as with foreign manufacturers.

As a participating laboratory under the National Type Evaluation Program, Ohio has established itself as a leader in the field of weights and measures. Presently, only two other laboratories in the United States have NTEP authorization; one is the National Bureau of Standards' Office of Weights and Measures, and the second is the State of California.

Ohio's NTEP Laboratory provided evaluation services to five Ohio companies and nine out-of-state companies during 1987. This center for the evaluation and approval of scale designs and other weighing and measure elements, thoroughly evaluated 53 devices and 13 indicators during the year. The National Bureau of Standards/Office of Weights and Measures issued "Certificates of Conformance" for 38 of the devices/indicators Ohio's NTEP staff evaluated.

Advise, Assist and Train - There are 88 counties and 11 cities in Ohio that have established weights and measures programs. All local jurisdictions check small capacity scales and gasoline pump meters. Many of the jurisdictions reweigh packages and some check parking meters and taxi meters and investigate local complaints.

The Director of Agriculture and his Deputy State Sealer advise and assist these local sealers regarding their powers and duties. Under provisions of the Ohio Revised Code, the State shall provide for the training of local weights and measures sealers and may establish minimum training requirements.

Additionally, the Department assists the local weights and measures jurisdictions through the following programs:

Vehicle Scales - Ohio has five large capacity scale testing units. Two of the units are tractor trailer rigs that carry 40,000 pounds of calibrated test weights. One is a tandem axle unit that carries 20,000 pounds of calibrated test weight. The other two carry 10,500 pounds of calibrated test weight.

This year 649 vehicle scales were tested and/or inspected—of this number, 180 were rejected for repair or condemned for replacement on the initial check, for a rejection rate of 28 percent.

Livestock Scales - During 1987, one of the Division's smaller scale-testing units was used to test livestock scales throughout Ohio. One hundred and eighty-eight (188) of the known 206 livestock scales were inspected and/or tested this year. The initial rejection rate was 21 percent.

Fuel Meters - Ohio's Weights and Measures Division operated two 100-gallon provers on trailers and a 95-gallon L.P. Gas prover during the year. State weights and measures inspectors travel the State with these provers, inspecting and testing fuel delivery truck meters. In 1987, 2,688 such meters were inspected and/or tested and of this number, 674 required adjustments or were condemned for repair or replacement on the initial tests/inspections for an average rejection rate of 20.8 percent for fuel meters and 46.1 percent on L.P. gas meters.

Package Control - Ohio has two weights and measures staff members assigned to check prepackaged commodities (fertilizer, meat, milk, produce, etc.). Special assistance, specialized complaints and consumer complaints are also investigated under this program (short weight and short measure in firewood, kerosene, insulation, etc.).

One hundred and nineteen (119) violation letters were sent to packers in violation of Ohio law notifying them of the nature of their violations (short weight, improper labels, etc.). In addition, a listing of documented package violations was included in each issue of the Division's "Quarterly Review" newsletter for local weights and measures jurisdictions' review.

DIVISION OF WEIGHTS & MEASURES
Inspection Statistics
1987

FIELD PROGRAMS:

	INITIAL CHECK			RECHECK			Total Tested &/or Inspected	Total Known	Rejection Rate
	Sealed	Rejected	Condemned	Sealed	Rejected	Condemned			
Large Capacity Vehicle Scales	421	152	28	18	2	0	649	2,868	29.9%
State Patrol Vehicle Scales	12	7	0	3	0	0	19		36.8%
Livestock Scales	130	32	2	3	1	0	188	206	20.7%

	INITIAL CHECK				RECHECK				Total Tested &/or Inspected	Total Known	Rejection Rate
	Sealed	Adjusted	Rejected	Condemned	Sealed	Adjusted	Rejected	Condemned			
Fuel Meters (100 gallons)	2,153	401	48	15	6	3	0	0	2,233	2,495	20.9%
L.P. Gas Meters	396	176	27	7	21	19	2	2	455	626	48.8%

	Number Lots Checked	Number Packages Checked	Number Packages Represented in Lots	Number Lots Rejected	Number Packages Ordered Off-Sale
Random	384	9,576	477,716	67	65,175
Standard	237	2,983	6,742	145	3,586

	Number Products	Number Products Suspected Short	Percentage Suspected	Establishments Visited	Violation Letters Issued
Audit Testing	2,019	142	7%	358	119

NTEP Lab Stats

Devices < 2000 lb. Evaluated	Devices > 2000 lb. Evaluated	Indicators Only Evaluated	Total Devices/Indicators Evaluated	Certificates of Conformance Issued
42	11	13	66	38

5 Ohio companies received type evaluation services.

16 Out-of-State companies received type evaluation services.

DIVISION OF CRIMINAL INVESTIGATIONS

The Division's 12 employees conduct investigations of complaints and alleged violations of State and Federal laws and regulations for administrative and/or criminal or other legal action.

Responsibilities are collecting and preserving evidence, interviewing involved parties, examining and scrutinizing records, formulating and presenting evidence to prosecuting authorities and testimony in court and/or administrative hearings to secure prosecution and compliance with Ohio and Federal Laws applicable to those programs governed and/or administered by ODA.

Five investigators are assigned full time to the Food Stamp Fraud Unit, one to the Pesticide Enforcement Section, and one to the enforcement of the State/Federal Meat Inspection Act. The remaining investigators are assigned to cover the balance of the divisions of ODA.

The coordination of ODA's Natural Disaster and Nuclear accident response teams falls under this Division.

The Food Stamp Trafficking Unit (FSTU) - This unit was formed based on a contract between the United States Department of Agriculture's Food Nutrition Service, the Ohio Department of Human Services (ODHS), and ODA. Based upon this contract, the FSTU is the only Statewide enforcement unit for food stamp fraud and trafficking. Since its implementation in 1984, FSTU has consisted of one criminal investigation supervisor, four criminal investigators, and one administrative secretary under the direction of the Division Chief.

The majority of the referrals for investigation have come at the request of Federal, State, County and Municipal agencies. FSTU personnel have gained an expertise in the field of food stamp investigations and are duly respected by law enforcement departments.

The Ohio FSTU Program has been touted by the USDA to other states and presently, the State of Illinois is using our program as a guide in the creation of new enforcement unit.

The Compliance and Evaluation Section (C&E) - This section consists of a criminal investigation supervisor, four criminal investigators and one secretary. During 1987, the supervisor went on disability leave for 4-1/2 months and retired November 30, 1987.

In March, 1987, the C&E staff entered upon an investigation under contract with ODHS, into theft of USDA TEFAP cheese in East Cleveland. This was an extensive investigation involving two investigators for approximately three months. This investigation has resulted in six convictions in the Cuyahoga County Common Pleas Court; five felonies; one misdemeanor with restitution of $15,000 thus far. There is one case pending in the Cuyahoga County Common Pleas Court and one in the Summit County Common Pleas Court. There are other charges to be filed in Cuyahoga County Common Pleas Court. This investigation documents the theft of about $120,000 of cheese. A second cheese investigation has resulted in the felony indictment of five suspects in the Summit County Common Pleas Court.

The C&E staff also incurred additional responsibilities late in 1987 through a contract to conduct investigations for the Ohio Veterinary Medical Board.

The C&E staff started 1987 with 172 pending complaints: 230 new complaints were logged and 159 completed for a net gain of 71 pending complaints over 1986.

During 1987, 53 complaints were handled as full-case investigations and resulted in 23 prosecutions. Some of the cases were resolved with warning letters or notices of violation, while some involved personnel and resulted in resignation or other disciplinary action. Some eight cases have prosecution requests pending into 1988.

A total of 70 warning letters or notices of violation were issued in 1987 to firms that did not warrant prosecution, primarily because of a first offense and a voluntary compliance aim taken by C&E.

The C&E staff executed 54 embargoes involving 13,036.5 pounds of food items, mostly meat and poultry that was either adulterated or misbranded. This was the result of 828 reviews. In addition, 46 Evaluation Incident Reports were generated to the Meat Inspection Division concerning minor infractions of the Meat Inspection Regulations.

DIVISION OF GRAIN WAREHOUSE

The Division of Grain Warehouse licenses and regulates agricultural commodity handlers (grain elevators) in Ohio and administers a $5.8 million Indemnity Fund, which reimburses farmers when a licensed elevator becomes insolvent.

The Indemnity Fund is supported by a 1/2 cent per bushel assessment on grain marketed at licensed elevators in Ohio. The assessment is only collected if the Indemnity Fund levels drop below $4 million. To date, the fund has reimbursed farmers over $2 million for commodities they have forfeited in elevator insolvencies. Last year ODA reimbursed 55 farmers from two separate insolvencies.

Legislation establishing the Indemnity Fund and stricter regulatory requirements for grain elevators became effective July 1, 1983. This legislation gave ODA more authority to control industry in an effort to protect farmers through the regulation and licensing of agricultural commodity handlers. Before this legislation, from 1968 to 1983, approximately $9 million was lost by farmers in grain elevator insolvencies.

Ten grain warehouse examiners are employed by the Grain Warehousing Division to conduct elevator examinations. These examinations take place at least once a year. Some elevators with weaker financial positions are examined more often to insure financial stability.

During an examination, financial records are thoroughly examined; grain on storage is measured and verified; and grain warehousing receipts are checked.

ODA is entering into a second year of a Cooperative Examination Agreement with USDA to perform examinations of licensees with Uniform Grain Storage Agreements. In the past, ODA and USDA both examined the same warehouses and many times performed exams within a close time proximity. Now that ODA performs the examinations, this redundancy has been eliminated.

As any person associated with agriculture knows, there have been rapid ongoing changes in agriculture since the 1970s. The overall economics of agriculture has not been favorable in recent years, requiring numerous changes in the warehousing program and as one might suspect, many changes will be required as agriculture economics improves. The division is striving to become more thorough and better educated to keep up with a changing industry.

A seven-member Commodity Advisory Board advises and counsels the Director of Agriculture and the Division of Grain Warehouse in the administration of the Ohio Grain Warehousing Law, including approving farmer claims for payment from the Indemnity Fund when a grain elevator becomes insolvent. The

present Commission members are: Joe Whitney, chairman, Auglaize County; Jesse Curtis, Logan County; Meriam Hare, Fayette County; Ellen Ricketts, Fairfield County; Gene Beaston, Wyandot County; Floyd Sisinger, Allen County; and William Koon II, Allen County.

COMPARATIVE SUMMARY OF RECEIPTS AND EXAMINATIONS

	1987	1986	1985
Commodity Handler License Fees	$ 145,749.94	$ 171,395.78	$ 180,148.12
Number of Handler Licenses Issued	711	707	705
Interest Earned on Indemnity Fund	426,245.71	548,698.85	320,948.12
Interest Utilized for Operational Use	139,521.00	70,000.00	-0-
Balance in Treasurer's Account 498	5,851,633.29	5,660,742.94	3,976,869.13
Claims Against Indemnity Fund	55	105	84
Total Amount Paid in Claims	125,143.39	289,477.66	204,892.67
Monies Recovered to Indemnity Fund	22,420.08	20,751.82	-0-
Number/Warehouse Examiners	10	9	9
Number/Warehouse Examinations Completed	586	735	658
Violation Notices Issued	209	71	48

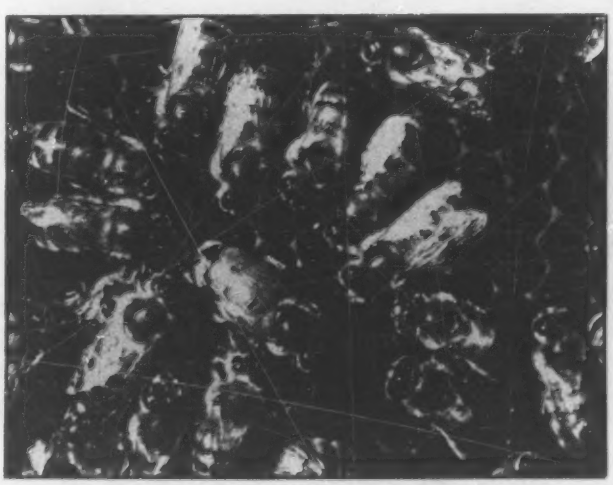
DIVISION OF PLANT INDUSTRY

The Division of Plant Industry is a multi-faceted division comprised of six sections, each responsible for the enforcement of Ohio laws—all having a biological basis. The purpose of these laws is to provide economic protection to the producer and the consumer.

APIARY SECTION

The purpose of the Ohio Apiary Inspection Program is to control and/or eradicate diseases affecting the honey bee. This is accomplished by the annual registration of apiaries by beekeepers and the inspection of these apiaries with state apiary inspectors supervising and assisting county appointed inspectors.

Approximately 10,000 applications for apiary registration were mailed to beekeepers in February. In October, inspections started to detect Varroa mites on honey bees. A total of 31 apiary locations were diagnosed as being mite infested. All infested apiaries were placed under quarantine. Plans are to conduct extensive colony inspections starting in 1988.



APICULTURE PROGRAM

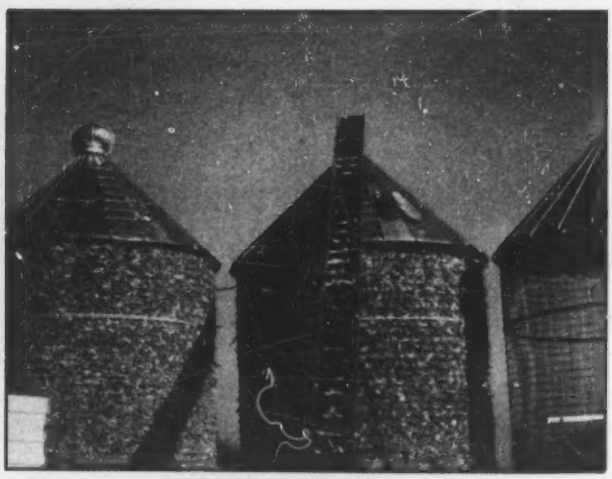
Total Bee Colonies Inspected	56,937
Total Apiary Locations Inspected	9,405
Interstate Movement Inspections (colonies)	2,204
American foulbrood diseased colonies diagnosed	693
European foulbrood diseased colonies diagnosed	305
Chalkbrood diseased colonies diagnosed	673
Disease samples taken for diagnosis	794
Registration certificates issued	8,295
County appointments approved	67
Consumer beekeeper requests	583

CERTIFICATES AND PERMITS ISSUED

Certificate of Health (out of state movement)	19
Permit of entry into Ohio	3
Quarantine apiary movement	8
Queen rearing certificate	6
Transfer ownership permit	82

FEED AND FERTILIZER SECTION

This section administers Ohio's Commercial Feed Law, Fertilizer Law, Agricultural Liming Materials Law, Agricultural Additive Law, and Anhydrous Ammonia Regulations. Feed and liming



material manufacturers and distributors are licensed annually by calendar year. Fertilizer licenses and specialty fertilizer registrations are issued by fiscal year (July/June). A $5 license fee is charged for feed and fertilizer licenses. A liming material license is $50. Registration of specialty fertilizer (lawn and garden) is $50 per grade. Additive registration is $50 per product per year.

With the exception of the Agricultural Additive Law, all of the other laws provide for an inspection fee. The inspection fee is 10 cents per ton for feed, 12 cents per ton for fertilizer, and 1/4 of one cent for each ton of liming material in excess of 2,500 tons.

In 1987, there were 1,070 firms licensed to manufacture or distribute commercial feeds, 85 firms to distribute liming materials, and 679 firms to manufacture or distribute commercial fertilizers. Registrations were issued for 1,635 specialty fertilizer products and two agricultural additives.

The office staff is responsible for issuing licenses, registering products, and processing inspection fee reports. Product analysis bulletins and fertilizer tonnage sales reports are prepared semi-annually. The liming tonnage report is prepared annually. These reports are distributed to the county agents and depending on availability, may be requested by contacting the Feed and Fertilizer Section.

FEED AND FERTILIZER LABORATORY

The agricultural chemical laboratory analyzes animal feeds, fertilizers, liming materials, pesticides and samples. These analyses are to insure the proper labeling of consumer and specialty products. Feeds are checked for protein, drugs, minerals, vitamins, trace elements and adulterate.

Fertilizers are being tested for nitrogen, phosphorus, potassium and trace elements. Calcium, magnesium, total neutralizing power, and screen analyses are performed on agricultural liming materials. Custom mix samples are being implemented for assays.

FEED PROGRAM

Licenses Issued	1,070
Tonnage Processed	1,473 (1,796,260 tons)
Inspections	2,124 (samples)
Collected	2,625
Samples Reported	2,408
Samples Out of Tolerance	582
FDA Medicated Feed Inspections	23

FERTILIZER PROGRAM

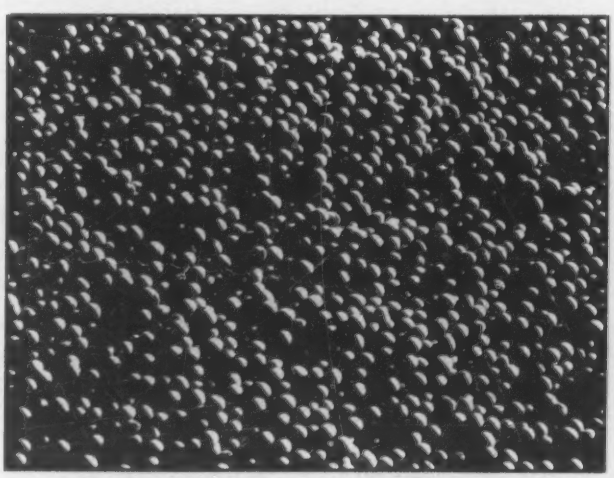
Licenses Issued	679
Registrations Issued	1,635
Tonnage Processed	748 (2,029,196 tons)
Inspections	1,984
Samples Collected	2,258
Samples Reported	1,712
Samples Out of Tolerance	308
Anhydrous Ammonia Inspections	252

LIMING MATERIAL PROGRAM

Licenses Issued	85
Tonnage Processed	37 (1,582,776 tons)
Inspections	109
Samples Collected	109
Samples Reported	95
Samples Out of Tolerance	26

SEED SECTION

The year began with the annual inspectors' meeting during which time the two regular and eight temporary seed inspectors were



assigned territories and briefed on current activities. These people are instructed to look for mislabeled seed and non-registered seedsmen. The following table shows that 5,338 visits were made to wholesale and retail outlets and that 2,689 samples were sent to the laboratory. As a result, 254 violation notices were issued. In addition, 1,025 service samples were tested for farmers and the Department of Transportation. Some 225 samples of soybeans were germinated in soil in the greenhouse to lighten the load for the germination analyst and to avoid disease damage that sometimes occurs in the normal laboratory tests.

SEED PROGRAM

Seed Labelers Permits Issued	368
Packet Vegetable Seed Fees	$34,026.64
Seed Tags Issued	5,424
Seed Tonnage Fees	$110,024.37
Inoculant License Issued	7
Applicator's Licenses Issued	138
Income-Laboratory Services	$3,902.00
Total Income	$153,139.81
Inspections	5,338
Samples Taken	2,689
Samples Analyzed	2,554
Stop Sales	67
Relabel	187

PESTICIDE REGULATION SECTION

The certification of private and commercial applicators under Ohio's plan, approved by the United States Environmental Protection Agency, is still in effect. Certification is required of all applicators if they are to use those pesticides that have either state or federal restricted uses. Certification requires training and passing a written examination on certain categories of pesticide application. Certification is a method of determining that a person is competent in using pesticides.

Since the certification program was initiated, approximately 38,000 private applicators (growers of an agricultural commodity) have attended pesticide training sessions conducted by the Ohio State University's Cooperative Extension Service and ODA. This year 637 persons have been certified for the first time as private applicators to use restricted-use pesticides. Since 1977 a total of about 28,000 persons have been certified as private applicators in Ohio with 16,300 certified to use "Restricted Use" pesticides.

Four regional commercial-private pesticide applicator training sessions were held by the Cooperative Extension Service and ODA during December for the required recertification. Certification is only valid for three years. Two sessions were also held in February for new commercial applicants who wish to become licensed. A total of 2,432 persons attended the December sessions and 741 at the February sessions. Ohio had 7,231 commercial pesticide applicators certified and licensed during 1987.

Pesticide products, which include sanitizers, germicides, insecticides, fungicides, and herbicides, are required to be registered if they are to be distributed in the State. During late winter and early spring, the field staff concentrated on visiting pesticide distributors and dealers who stock these products to assure that the products were registered and properly displayed to avoid contamination of the environment and food products. Products were randomly sampled for laboratory analysis to assure that they met labeled claims for active ingredients.

The annual pesticide product registration was completed with 1,187 companies registering 9,922 pesticide products for sale in Ohio. This is an increase of 467 products registered from the previous year. In 1987, 24 "Stop Sales" were placed on pesticide products and one "Stop Sale and Recall" was placed on pesticide products being deficient or over formulated or non-registered with this Section.

During this period, four special "Section 18," or emergency use exemptions for specific pesticides were requested from and approved by U.S.E.P.A., with one denied. The specific uses of selected pesticides were issued for use on lettuce, onions, wheat, and pea beans.

Four requests for "Special Local Need" pesticide registrations were reviewed with two being issued and two refused on the lack of need.

This Section issued 78 "Notices of Warning" to pesticide applicators and dealers for various violations of the Ohio Pesticide Law and the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). This Section has primary authority from the U.S.E.P.A. to also enforce the federal pesticide act.

PLANT PEST CONTROL SECTION

A total of 1,176 nurseries were inspected in 1987, comprising 14,031 acres overall. Both figures are up slightly over 1986. A little more than 3,200 nursery dealers were licensed and inspected in 1987.

The top 20 insects and diseases reported during last year are as follows:

INSECTS	DISEASES
Black Vine Weevil (335)	Apple Scab on crabapples (168)
Aphids (304)	Crown gall on Euonymus (48)
Japanese Beetle (245)	Cedar-hawthorn rust on hawthorn (44)
Bagworm (189)	Powdery mildew on lilac (41)
Pine Bark Adelgid (172)	Lophodermium needlescast on pine (37)
Pine Needle Scale (151)	Septoria leaf spong on dogwood (35)
Fall Webworm (138)	Powdery mildew on Azalea (29)
Twospotted Spider Mite (134)	Phomopsis twig blight on juniper (26)
Leafhoppers, unk. spp. (122)	Phytophthora dieback on Rhododendron (26)
Spruce Spider Mite (116)	Fireblight on crabapple (26)
Honeylocust Spider Mite (116)	Phyllosticta leaf spot on maple (26)

Mimosa Webworm (112)	Rose blackspot (21)
Cooley Sprucegall Adelgid (108)	Powdery mildew on oak (18)
Birch Leafminer (102)	Cedar-quince rust on hawthorn (18)
Oystershell Scale (97)	Diplodia tip blight on pine (17)
Fletcher Scale (90)	Bacterial leaf spot on English ivy (15)
Bronze Birch Borer (79)	Volutella leaf & stem blight on Pachysandra (15)
Eastern Sprucegall Adelgid (78)	Fabraea leaf blight on hawthorn (14)
Southern Red Mite (74)	Rose powdery mildew (13)
Euonymus Scale (61)	Dogwood canker (12)

The mild winter last year resulted in higher bagworm occurrences throughout southern Ohio. An early and unusual outbreak of Yellow-poplar weevil occurred early in the season and noticeably affected most tuliptree and magnolia in central and southern Ohio. A large brood of Periodical Cicada also emerged last year in western Ohio.

Soybean Cyst Nematode was found for the first time in Ohio on soybeans (Sandusky County). Some fields were showing severe losses. Delimiting surveys have been started and will be continued into next season.

A relatively new disease of Multiflora Rose was also detected for the first time in Ohio in several areas near Cincinnati. The disease is known as Rose Rosette and is usually lethal to affected plants within 2 years. Tests are being initiated to determine its effect on other types of roses.

The Gypsy Moth continues its advance into northeastern Ohio. Pheromone trap catches doubled in most northeastern counties and egg masses can now be found with only limited effort throughout the extreme northeast corner of the state. No suppression spraying was done in 1987 due to a lack of funding. Ohio enacted a state Gypsy Moth Quarantine in January of 1987, and it is anticipated that a significant area will be put under regulation by mid-September of 1988.

Nursery Inspection Certificates Issued	1,304
Nursery Dealers Certificates Issued	3,526
Hardy Bulb Dealer Certificates Issued	91
Nursery Agents Certificates Issued	62

NURSERY INSPECTIONS

Initial Inspections of Nursery Year	1,595
Recall Inspections	467
Storage Inspections	9
Strawberry/Raspberry Inspections	19
Restrictions	29
Dealer Inspections	2,402
Stop Sales	803
Seizures	11
Rejection Notices	44

SPECIAL INSPECTIONS

Inspection of plant material for homeowners moving to other states	70
Export Certificates of Nursery Stock and other agricultural commodities	726
Post-Entry Quarantine Inspections	34
Investigations	1,543
Prosecutions	1
Pest Diagnosis	420

Export of raw or unprocessed agricultural commodities must be certified free of injurious insects, diseases, and other pests such as weed seeds, nematodes, snails, etc., in order to protect the importing country's agricultural industry. The inspection and certification of Ohio products for the export market is conducted largely by the Plant Pest Control inspection force. Some grain is also inspected by the Lake ports by federal inspectors.

COYOTE INDEMNITY FUND

* ODA began to indemnify farmers for livestock killed or injured by coyotes. Legislation signed by Governor Richard F. Celeste and effective on February 27, 1987, allowed ODA to reimburse farmers for livestock killed or injured by coyotes from an indemnity fund.

COYOTE CLAIMS
FEBRUARY 1987 - FEBRUARY 1988
33 COUNTIES

COUNTY	Poultry #	Amt	Sheep #	Amt	Calves #	Amt	Goats #	Amt
Adams			5	450.00	2	350.00		
Ashland			3	249.60				
Auglaize			4	260.10				
Belmont			1	25.00	2	260.00		
Brown			3	182.50	1	150.00		
Butler	75	283.70	22	1613.00	3	280.00		
Clark			8	500.00				
Champaign			1	420.00				
Clinton			2	64.00			1	75.00
Coshocton			19	1330.00				
Crawford			1	35.00				
Fayette			2	350.00				
Guernsey			47	3441.00	2	200.00		
Hardin			5	210.00				
Harrison			13	1560.00	5	840.50		
					+1 cow			
Highland	33	201.00	5	615.00				
Hocking			6	294.50				
Huron	1	10.00	1	45.00				
Lake			1	75.00				
Logan			13	900.00				
Madison			3	450.00				
Marion			3	202.00				
Muskingum			38	2073.00				
Noble			23	1305.00	1	185.00		
Preble			11	582.00				
Ross			5	285.00				
Seneca			4	152.80				
Shelby			1	60.00				
Tuscarawas			7	438.00				
Union			9	481.00				
Williams			3	210.00				
Wood			4	160.00				
Wyandot	26	78.00	8	230.20	1	67.00		
	135	$572.70	281	$19,248.70	18	$2,332.50	1	$75.00

GRAND TOTAL $22,228.90

DIVISION OF MEAT INSPECTION

The Division of Meat Inspection is responsible for administering the Ohio Meat and Poultry Inspection Laws in such a manner as to conform to provisions of the Wholesome Meat Act and the Federal Poultry Inspection Act passed by Congress in 1967. The Ohio program, as those of other states, is subject to review

by the Federal Meat Inspection Service and must be certified as "Equal to" federal inspection.

The Division operates its field program through 13 geographical districts, each district being supervised by a veterinarian and one or more program supervisors. Overall supervision of the program is provided by the Division Chief and Assistant Chief with the support from the technical staff headquartered at 8995 East Main Street, Reynoldsburg.

The objective of the Meat Inspection Program is to assure that meat and poultry products are processed under sanitary conditions, are wholesome, unadulterated and properly labeled. To accomplish this, inspection is accomplished in the following steps:

1. **Approval of Plant Facilities and Sanitation** - Each establishment must provide a safe water supply, adequate sewage disposal system, properly installed plumbing and drainage system and such other facilities and procedures as are necessary to maintain sanitary conditions within the establishment and to allow the production of wholesome products.

2. **Antemortem and Inspection** - Each animal/bird slaughtered for human consumption is examined by division inspectors before slaughter, and its carcass is examined at the time of slaughter and dressing to determine that it is wholesome and free of contamination. Animals and carcasses found to be diseased are handled under veterinary supervision to assure that all meats and poultry that are diseased or otherwise unwholesome are disposed of in a manner that precludes their entering the public food supply.

3. **Reinspection** - Products passing post-mortem inspection are subject to reinspection at every stage of handling to assure that only wholesome products, properly identified with an Ohio inspection legend leaves the establishment.

4. **Preparation** - Industry is required to exercise controls during the preparation of processed products to assure that only wholesome ingredients are used and that added substances are approved and used only in allowable quantities. Processes must be adequate to eliminate the trichinae hazard, if pork is an ingredient of a product that is to be eaten without further cooking. The establishment is required to follow written formulas and processing procedures.

5. **Labels** - Labels to be used on processed products must be submitted to the division for advance approval. These labels on consumer packages must bear the Ohio inspection legend. This is the consumer's assurance that the product was wholesome, unadulterated and properly labeled when leaving the establishment.

FOODS, DAIRIES AND DRUGS

The Division of Foods, Dairies and Drugs is delegated the responsibility of securing compliance with the laws that are designed to safeguard the public against uncleanliness, unhealthfulness, adulteration, false advertising, illegal labeling and fraud incidental to the preparation, handling, packaging, storage, transportation, refrigeration, spoilage and other hazards connected with the merchandising of foods, dairy products, beverages and drugs. All related consumer complaints are handled by this agency.

Also in the Division, Chemist, bacteriologist and technicians coordinate and conduct the laboratory tests on feeds and agricultural commodities regulated by other Divisions within the Department. Results of tests are relayed back to the inspecting Division, and followed up by that Division. This Division is considered to be one of the most modern consumer protection laboratories in the State, and one of the most efficient food analysis laboratories in the Midwest.

ANNUAL REPORT STATISTICS
January 1, 1987 - December 31, 1987

	LICENSES	DEPOSITS
Bakeries	4,776	$ 53,046.00
Frozen Food Establishments	2,534	63,625.00
Canneries	103	5,150.00
Soft Drinks	15	715,700.00
Syrup and Extracts	55	2,750.00
Cold Storage Warehouses	31	3,100.00
Dairy Plants (Dealer's)	83	4,860.00
Temporary Weigher, Sampler, Tester	181	483.00
Weigher, Sampler, Tester	874	4,540.00
Frozen Dessert Establishments	363	15,593.50
TOTAL	9,157	$215,847.50

DIVISION OF MARKETS

The Division of Markets provides support services to Ohio's agricultural industry in the movement of food and fiber from producers to consumers. These services include but are not limited to: grading, inspection, promotion, and market intelligence with regards to Ohio's position in the world market place.

Market Development - Emphasis is placed on new product and new market development projects for Ohio, domestically and internationally. Much of the funding for these projects are industry shared, or matching funds from the USDA, or Department's Rural Rehabilitation funds.

The Division works closely with commodity groups established under the Ohio Revised Code to develop new markets and to provide production research. These groups include: the Ohio Nursery Stock Marketing Program, Ohio Grape Marketing Program, Ohio Apple Marketing Program, Ohio Beef Marketing Program, Ohio Egg Marketing Program and the Ohio Turkey Marketing Program, as well as other commodity groups like the Ohio Pork Producers Association, Ohio Soybean Association, and the Ohio Corn Growers Association.

Funding for commodity development projects is generally from self-imposed producer assessments. The Grape Industries Program, however, receives its monies from a three percent gallon tax on wines sold in Ohio.

International Trade - The Division of Markets and the Ohio Department of Development's International Trade Division have combined their staffs in order to promote agricultural exports. In this unique program, two ODA employees are managed by DOD's International Trade Division (ITD) to bring agricultural contacts and expertise into sharper focus with ITD's export

promotions. The Agri-Export Assistance Program (AEAP) is a result of these efforts. The program's focus is to assist the entrance of small- to medium-size firms into the export market.

Activities this past year included the introduction of two new export products, food flavorings and honey wine, into the Asian marketplace. The department represented two Ohio firms in the Hong Kong American Solo Show and the Hotel Food Asia Show in Singapore and subsidized a third's booth space.

The Agri-Export Assistance Program also recruits firms to participate in the Mid-America Agri-Trade Council (MIATCO) promotions in a variety of marketplaces abroad. This has resulted in two "first time" sales of Cracker Jack caramel corn and Le Mix cocktail mix into the Netherlands' marketplace.

A Cleveland lumber broker, new to exporting made his first export sale to Taiwan through a relationship initiated by this office. Cooperative efforts with the Ohio Department of Natural Resources and the AEAP qualified the buyer, planned their itinerary, and followed-up when assistance was requested.

The above exemplifies how the Ohio Agri-Export Assistance Program achieves its goals through participation in foreign shows, recruiting and educating for export promotions, and match making. Cooperation with the USDA Foreign Agriculture Service (FAS), their cooperators and with local exporters has enabled Ohio firms to access federal marketing reimbursement funds for the promotion of brand name products in Japan, Taiwan and other markets. These cooperative efforts have introduced many Ohio agribusiness products to foreign buyers.

Fruit and Vegetable Inspection - To maintain the quality of produce sold in Ohio, the Division of Markets has a cooperative agreement with the USDA to provide grading and inspection service. Commercial inspections for grade and/or condition of fresh fruits and vegetables provide the basis for orderly marketing of produce. Most of the state and federal institutions utilize these inspectors to insure the quality and condition of produce being delivered. During the harvest season, additional graders are hired for grading of tomatoes, pickles, onions, and potatoes. Inspections take place at commercial establishments, institutions, and shipping points.

Poultry Grading - Poultry grading is another federal-state cooperative program where state personnel grade for the USDA. Grading is a marketing service that establishes various levels of quality characteristics on poultry products. Grade factors enable the industry to have specific parameters for various quality factors and help the consumer more readily identify products, such as shell eggs, poultry, poultry products, and rabbits. There is also a Hatchery Surveillance Program and an Egg Surveillance Program to protect both producers and consumers.

Market News - The Division of Markets has two distinct programs, one for livestock, and one for grain market news. In the livestock program, 15 companies are contacted daily to determine Ohio direct hog prices. Other livestock information includes U.S. major terminal markets and direct country markets, beef markets (both

live and dressed trade), sheep markets, feeder calf and feeder pig markets.

Ohio cash grain markets are reported daily, as well as future prices; Toledo and Cincinnati terminal prices; and basis prices along with trends and changes in prices. This is the most comprehensive Ohio grain market available in the state. The major wire service, newspapers, and radio stations utilize the Market News Service. Virtually, all those involved in buying or selling grain, livestock, poultry, and poultry products use the service. Additionally, insurance companies, investment companies, and other government agencies collect market information.

DIVISION OF ANIMAL INDUSTRY

The Division offices and laboratory functions were moved during May and June of this report period. Our complex now represents approximately 13,000 square feet of new equipped floor space that is integrated with the 5,000 square feet of refurbished space that was the existing pathological services laboratory. In the related reorganization, two major subordinate units were created, i.e., the Animal Disease Program Unit (brucellosis, tuberculosis and pseudorabies programs, etc.) and the Laboratory Service

Unit (biological tests, gross pathology, bacteriology, and microbiology). In addition, plans were established to tie all functions together with a CRT network system to improve submission/sample handling and record maintenance, recovery, etc. This system is to be operational during early 1988.

These identified changes and improvements will enhance the Division's ability to meet its statutory responsibility to promote and protect Ohio's livestock industry. Special areas of new concern to be addressed are poultry diagnostic and field programs plus additional test procedures required to support animals to be qualified for export to other states and/or countries.

Tuberculosis - Ohio had no confirmed bovine tuberculosis during calendar year 1987. Tuberculosis surveillance has continued through inspection of Ohio cattle at slaughter and tuberculosis testing 33,851 head on farms.

Equine Infectious Anemia - Equine Infectious Anemia (EIA) is a disease that is not transmitted to humans but may be lethal to horses. Testing revealed two positive horses in 1987. The number of positive horses detected and the number of horses under quarantine continues to decrease.

Brucellosis - Brucellosis is communicable to humans. The disease causes abortion and other losses in cattle. During 1987, there was no new brucellosis infection found in Ohio. The state of Ohio was declared Brucellosis Free on June 11, 1987. Brucellosis Free status permits Ohio cattle to move more freely in interstate commerce. Ohio continues to be validated free of swine brucellosis.

Pseudorabies - PRV is not contagious to humans, but may cause death in sheep, cattle, dogs, cats and baby pigs. There were 53 newly infected herds found in 1987. This is 17 more infected herds than were found in 1986. On December 31, 1987, Ohio had 96 quarantined PRV herds, eight more than 1986. Seventy-two (72) of these herds are located in Mercer and Fulton counties.

During 1987, Ohio and other states conducted pseudorabies and brucellosis tests on 34,240 identified blood samples collected from Ohio swine at slaughter. This program continues to be an effective way to find PRV-infected herds.

In March, 1987, PRV vaccination of non-infected herds in high risk areas of Mercer and Fulton Counties was encouraged by rule changes. Other new PRV rules are scheduled to be implemented on January 1, 1988.

Licensing and Inspection - This section issued 1003 licenses in 1987 to: livestock dealers, livestock auction markets, livestock concentration yards, slaughter establishments, livestock weighers, garbage feeders, rendering plants, and raw rendering material collectors. Among other items, these licenses require:

1. Testing of livestock market scales every six months to insure accurate weights.
2. A dealer and market record keeping system to be used to trace animal movements in disease outbreaks.
3. Inspection of garbage feeders to prevent spread of exotic and domestic diseases.

Laboratory Services Unit - The Laboratory Services Unit provides the Division of Animal Industry with various tests and services for regulation and diagnostic efforts. Several serological test systems are in operation including agglutination, agar gel immunodiffusion, complement fixation, serum-neutralization, hemagglutination-inhibition, and ELISA. These systems provide for the serologic testing of many different animal diseases.

Bacteriology testing is conducted for routine and special requests. These techniques provide for the isolation, identification and sensitivity testing for any one of several microorganisms.

Virology includes various tests to identify viral disease agents. The testing ranges from serum-neutralization tests to direct fluorescent antibody inquiry on sample tissue and cell cultures.

Pathological services include necropsy, histopathology, and parasitology. Clinical pathology is available on a limited basis. These studies combined with the information obtained from history, serology, and virology are the basis for making a diagnosis. The diagnosis, with laboratory findings, is reported to the veterinarian and animal owner who submits specimens to the laboratory.

ANIMAL DISEASE PROGRAMS

January 1, 1987 - December 31, 1987

ACTIVITIES

BRUCELLOSIS

Bovine	
Farm Blood Tests - Herds	4,151
Cattle	27,870
Milk Ring - Herds	8,827
Cattle	344,253
Market Cattle Blood Tests	179,409
Other	1,553
Porcine Slaughter Swine Tests - Ohio	22,127
Out of State	3,079
Over-all Infection Rate (Cattle)	0%

TUBERCULOSIS

Tuberculin Tests - Herds (Cattle)	3,174
Number of Cattle	33,851
Herds w/reactors	0
Number of reactors	0

EQUINE INFECTIOUS ANEMIA

EIA tests of Ohio horses	38,155
Number of Ohio horses "Positive"	2
Percent of total tested	.013%
Number of Positive horses destroyed	5

PSEUDORABIES

Swine tested (serum neutralization test)	81,972
Infected herds found	53
Herds using Pseudorabies vaccine	93
Quarantined herds (on 12-31-87)	96

LABORATORY SERVICES UNIT

January 1, 1987 - December 31, 1987

ACTIVITIES

Diagnostic accessions	5,315
Necropsies (include avian and mammalian)	5,270
Clinical pathology accessions	390
Feed analysis	458
Toxicological tests	611
Rabies examinations	82
Laboratory animals used in diagnostic procedures	25
Tissues examined histologically	4,184
Johne's culture	861
Brucella culture	182
Other procedures	9,232
Salmonella (includes avian) culture	15,198
Brucellosis	
- Cattle	239,295
- Swine	50,274
- Other	5,040
Brucellosis ring tests	35,258
Equine Infectious Anemia	38,155
Pseudorabies tests	81,972
Bluetongue - AGID	7,181
Anaplasmosis tests	
- Card	2,561
- Complement	2,041
Bovine Leukosis tests	3,398
IBR tests	1,112
BVD tests	1,130
3	
PI tests	385
Leptospirosis tests	28,956
FA cases	972
FA total tests	3,802
Virus isolation cases	
- (egg inoculation)	9
- (tissue culture)	82
Salmonella pullorum tests	6,888
Salmonella typhimurium tests	16,635
Salmonella gallinarium tests	2,675
Mycoplasma gallisepticum tests	24,616
Mycoplasma gallisepticum - HI tests	5,546
Mycoplasma synoviae tests	18,032
Mycoplasma synoviae - HI tests	1,769
Mycoplasma melegradis tests	25,634
Newcastle disease virus - HI tests	6,330
Avian Leukosis - ELISA	92
Infectious bronchitis - ELISA	3,964
Newcastle disease virus - ELISA	276
Infectious bursal disease - ELISA	644
Avian Encephalitis - ELISA	276
Mycoplasma synoviae/gallisepticum - ELISA	552
Micro Immuno Diffusion Tests - Avian	
- Avian Influenza tests	343
- Hemorrhagic Enteritis tests	112
- Adeno virus	42
- Laryngotracheitis	6
Samples Prepared and Shipped	503

LICENSING, INSPECTION AND QUARANTINE

January 1, 1987 - December 31, 1987

ACTIVITIES

Type of License Issued

Auction Markets	28
Horse Auction	8
Concentration Yards	85
Slaughtering Establishments	100
Livestock Dealers	167
Weighers	566
Rendering Plants	10
Collectors of Raw Rendering Material	31
Garbage Feeders	8

Inspections Performed I

Sheep Scabies (head)	63,840
Auction Markets	1,687
Concentration Yards	1,377
Rendering Plant and Raw Rendering Material Collectors	75
Garbage Feeders	74

Permits to Import Feeder Pigs

Headage	230,067
Permits issued	1,762
Premises Inspected	1,136

DIVISION OF FAIRS AND AMUSEMENT RIDE SAFETY

The Division currently has 11 inspectors, 2 supervisors, 1 chief inspector and 2 clerical personnel. The Division inspects and maintains records on over 1,300 amusement rides at over 900 events and fixed facilities throughout the State. The responsibilities of the Fairs and Amusement Ride Division are as follows:

Ride Licensing - Both permanent and portable amusement rides and devices are inspected and licensed with regard to ride safety and liability insurance requirements pursuant to the Ohio Revised Code Sections 1711.50 through 1711.99. This includes go-carts, water slides, and other water-related attractions found in water parks. The Division did adopt more specific water park rules to keep pace with the ever-changing technology in the water park industry. These water park rules will go into effect during the 1988 licensing season.

Games - The Ride Safety Division is also responsible for the inspection and licensing of all games and novelty sales at the 95 county and independent fairs and the Ohio State Fair.

Fairs - Another responsibility of this Division is to regulate and monitor the activities of the 95 county and independent Agricultural Societies. The Fairs and Amusement Ride Safety Division in conjunction with the State Auditor's Office has established a new accounting procedure to provide uniformity in the bookkeeping structure of all 95 county and independent fairs. The Division conducted 5 training seminars throughout the State to ready the Agricultural Societies for implementation of the new accounting procedure that will go into effect on December 1, 1988. This will not only bring uniformity to each county's accounting procedure, but also help alleviate costly audits.

Division Goals and Programs - A new program was established for the 1987 season in which permanent brass numbered I.D. plates were placed on the ride equipment. These plates serve as a permanent license number which remain on the ride. This also gives the Department the ability to track the various rides from owner to owner and follow the maintenance and modification records. Each year upon initial inspection, a validation sticker is affixed to the tag.

The continued training of our inspectors is of great importance. During the fall and winter, each inspector receives an average of 80 hours of formal class room training on amusement ride safety. In addition, our inspectors established a training manual to be utilized in the field during inspections. This manual contains protocol of inspections for Agricultural Fairs, permanent parks and festivals. Inspection guidelines for the following are also included: chain, wire rope, electrical inspections, grounding of portable rides, hydraulic inspections and accident procedures. The guidelines are based on manufacturer's recommendations and procedures that were developed by other regulatory authorities and our own Division. Also, our inspectors made field visits to the ride companies to consult with their maintenance persons on various rides, maintenance procedures and safety bulletins.

The Division sponsored two seminars this past winter. A Carnival and Gaming Seminar was held for law enforcement agencies, Directors of Fair Boards and personnel whose responsibilities include monitoring carnivals. This was a 24-hour hands-on seminar/workshop that covered all aspects of the carnival industry's gaming practices. The second seminar was for Ride Safety. This seminar was attended by 100 individuals who either own or operate rides in the State of Ohio. The seminar covered the new ride law and rules, inspection procedures and record keeping, operator hiring and training and maintenance and safety training.

INSPECTION REPORT
1987

Total Number of Parks & Events Inspected	967
Total Number of Rides Inspected	9,132
Total Number of Ride Licenses Sold	1,204
Total Number of Portable Ride Companies	96 (841 total rides)
Total Number of Permanent Parks	12 (284 total rides)
Total Number of Go-Cart Facilities	22 (35 total rides)
Total Number of Water Attractions	17 (44 total rides)
Total Number of Game Licenses Sold	1,309
Total Number of Novelty Licenses Sold	408

REVENUE:

Ride Licenses	$18,060.00
Inspection Fees	$54,570.00
Game Licenses	$19,635.00
Novelties & Sales	$ 6,120.00

1988 EXECUTIVE STAFF

Steve Maurer
(614)466-2732

Director

Tony Logan
(614)466-2732

Assistant Director
Legislative Affairs;
Ag. Finance Commission;
Legal Council; Rural Rehab.

Albert Matthews
(614)466-2732

Deputy Director Administration;
Rides; Fiscal;
Human Resources;
Marketing and Communications,
Weights and Measures;
Compliance and Evaluation;
Food Stamp Fraud

Barbara Valentine
(614)466-0211

Chief of Human Resources
Labor Relations;
EEO and Training

Frank Neel
(614)866-6361

Deputy Director
Food, Dairies & Drugs;
Consumer Analytical Lab;
Animal Industry;
Meat Inspection;
Plant Industry

Alice Walters
(614)466-8798

Chief/Marketing and Communications;
International Trade Division;
Urban Consumer Affairs

Chris Krause
(614)466-4597
Chief/Fiscal

Jane Ruvolo
(614)466-2732
Legislative Liaison
Policy Analysis;
Environmental Issues

Lenny Cavalier
(614)866-6361
Chief Inspector/
Amusement Ride Safety

Sam Waltz
(614)866-6361
Chief/Meat Inspection

Brian Peach
(614)866-6361
Chief/Plant Industry;
Grain Warehouse

Bruce Litzenberg
(614)866-6361
Chief/Weights & Measures

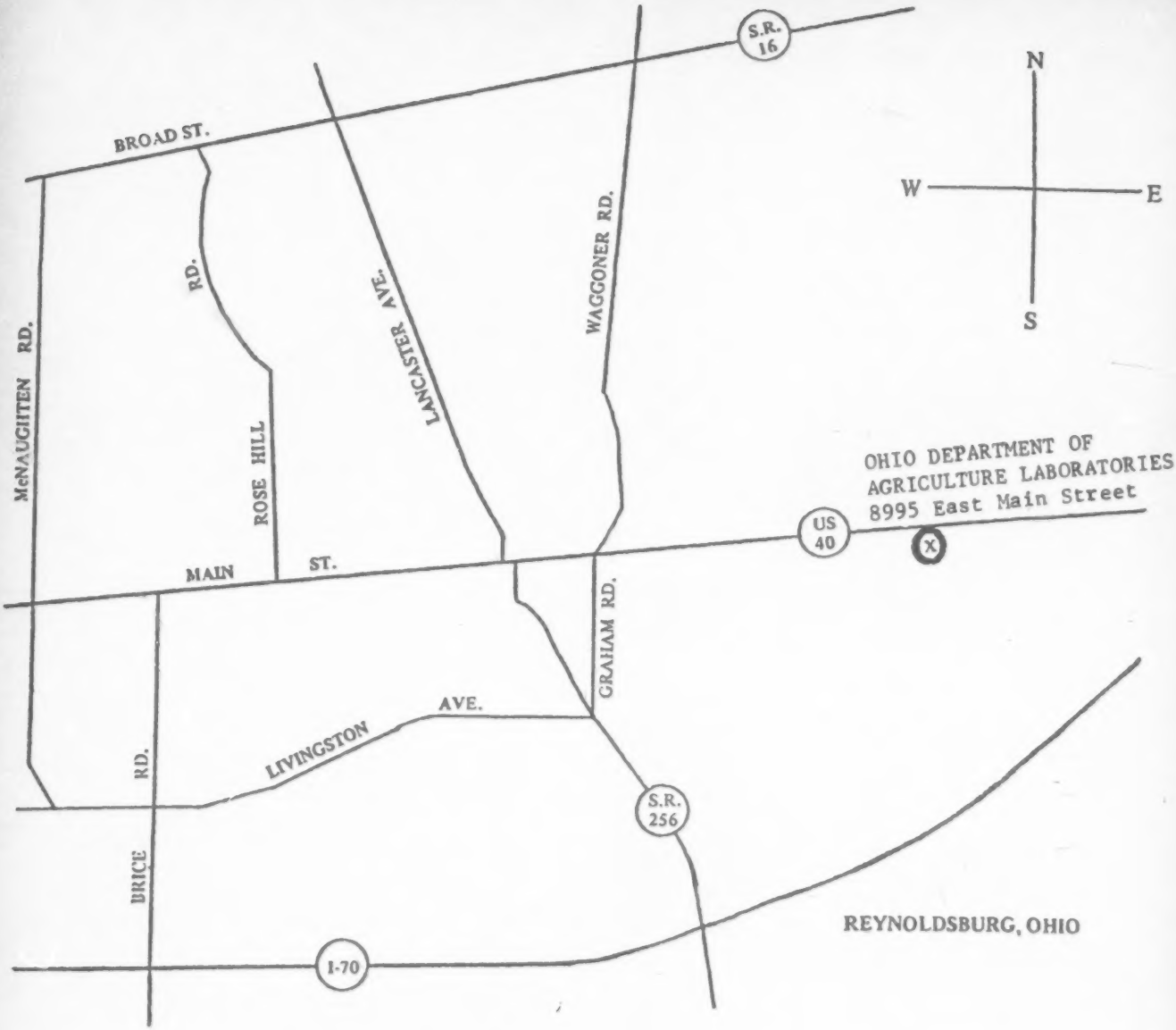
Larry Pontious Chief/Investigations
(614)866-6361 Food Stamp Fraud

Jay Graber, DVM Chief/Animal Industry
(614)866-6361

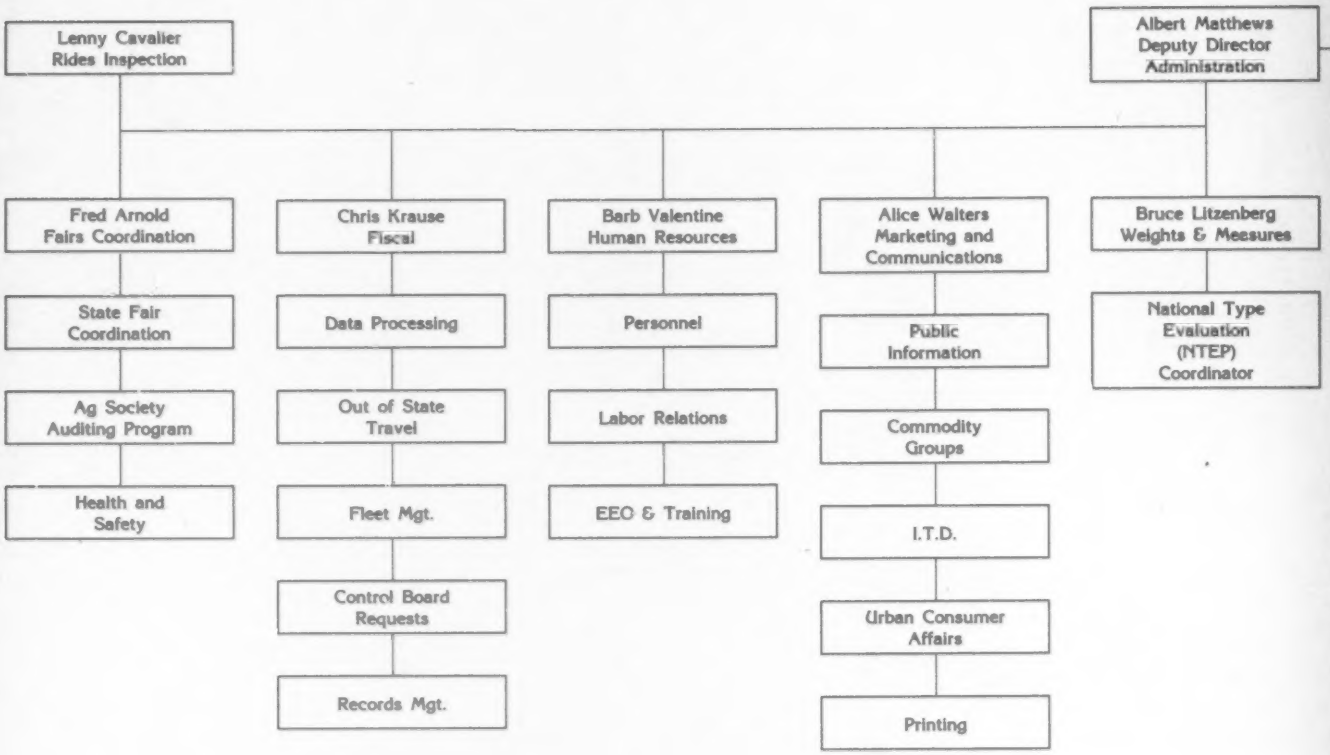
Herbert Helfrich Chief/Foods, Dairies & Drugs
(614)866-6361

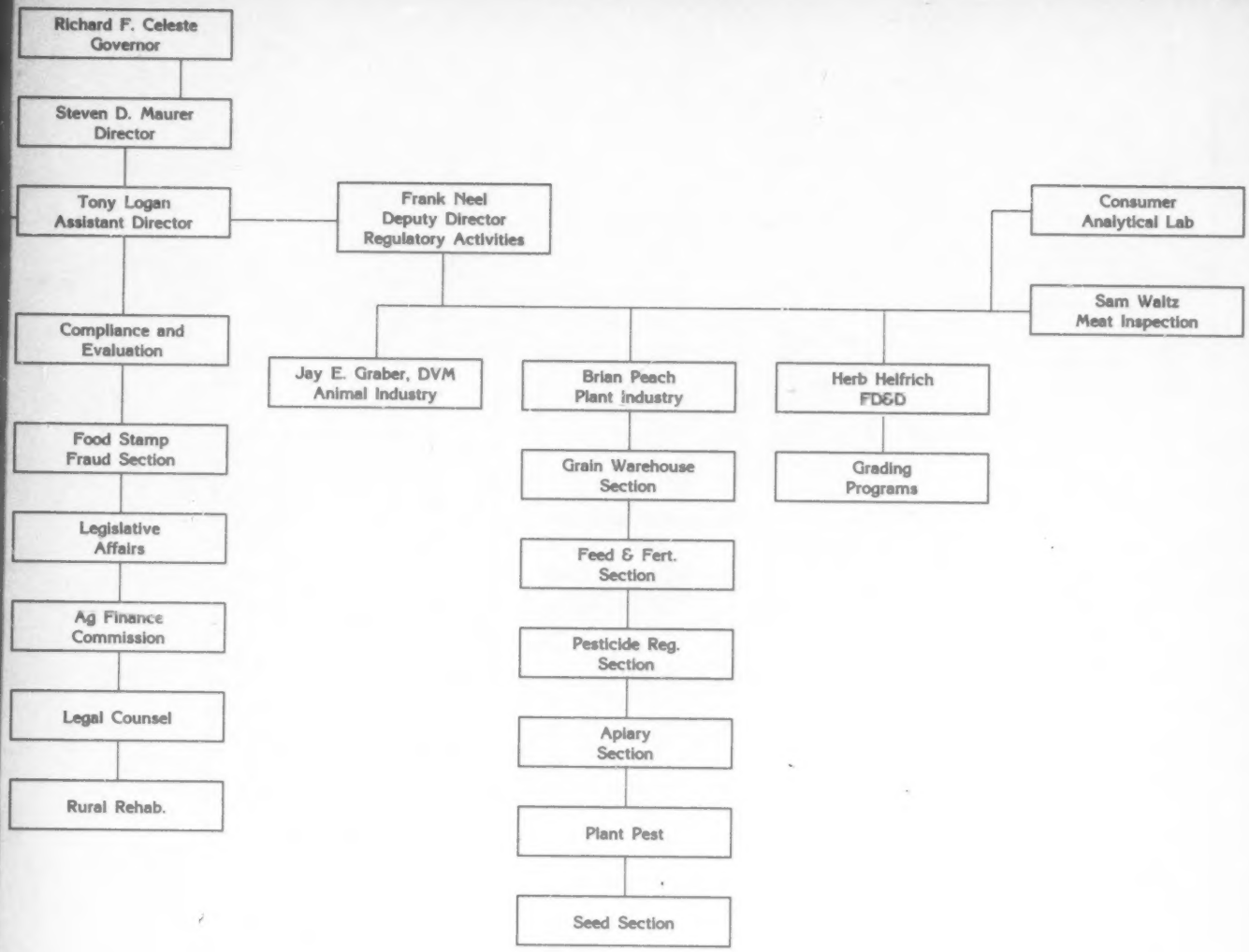
Ed Otte Supervisor/Computer Section
(614)466-6922

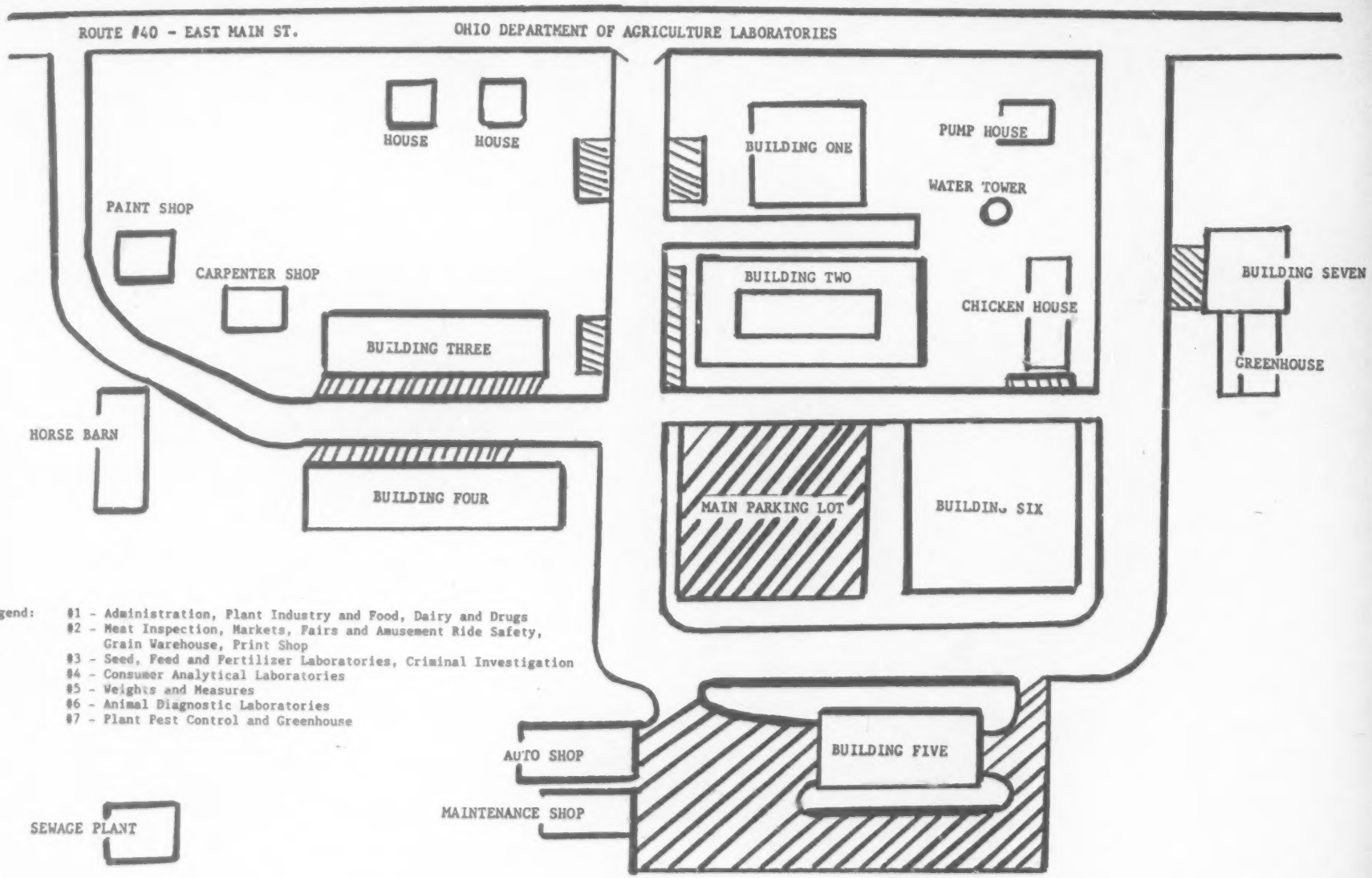
Fred Arnold Manager/Office of Fairs
(614)866-6361


S.R. 16
BROAD ST.
N
W
E
S
McNAUGHTEN RD.
RD.
ROSE HILL
LANCASTER AVE.
WAGGONER RD.
OHIO DEPARTMENT OF
AGRICULTURE LABORATORIES
8995 East Main Street
US 40
MAIN ST.
GRAHAM RD.
LIVINGSTON AVE.
RD.
S.R. 256
BRICE
REYNOLDSBURG, OHIO
I-70

OHIO DEPARTMENT OF AGRICULTURE




Richard F. Celeste
Governor
Steven D. Maurer
Director
Tony Logan
Assistant Director
Frank Neel
Deputy Director
Regulatory Activities
Consumer
Analytical Lab
Sam Waltz
Meat Inspection
Compliance and
Evaluation
Jay E. Graber, DVM
Animal Industry
Brian Peach
Plant Industry
Herb Helfrich
FD&D
Food Stamp
Fraud Section
Grain Warehouse
Section
Grading
Programs
Legislative
Affairs
Feed & Fert.
Section
Ag Finance
Commission
Pesticide Reg.
Section
Legal Counsel
Apiary
Section
Rural Rehab.
Plant Pest
Seed Section


ROUTE #40 - EAST MAIN ST.
OHIO DEPARTMENT OF AGRICULTURE LABORATORIES
HOUSE
HOUSE
PAINT SHOP
CARPENTER SHOP
BUILDING THREE
HORSE BARN
BUILDING FOUR
BUILDING ONE
PUMP HOUSE
WATER TOWER
BUILDING TWO
CHICKEN HOUSE
BUILDING SEVEN
GREENHOUSE
MAIN PARKING LOT
BUILDING SIX
Legend:
#1 - Administration, Plant Industry and Food, Dairy and Drugs
#2 - Meat Inspection, Markets, Fairs and Amusement Ride Safety, Grain Warehouse, Print Shop
#3 - Seed, Feed and Fertilizer Laboratories, Criminal Investigation
#4 - Consumer Analytical Laboratories
#5 - Weights and Measures
#6 - Animal Diagnostic Laboratories
#7 - Plant Pest Control and Greenhouse
AUTO SHOP
BUILDING FIVE
MAINTENANCE SHOP
SEWAGE PLANT